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                 Derwent World Patents Index enhanced with human
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                 feature for sorting BLAST answer sets
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                 USGENE: Enhanced coverage of bibliographic and
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         JAN 25
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         FEB 16
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T.S. Heard Ph.D.

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L2 15 L1 AND SQL<=10

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L3 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:1050188 HCAPLUS

DOCUMENT NUMBER: 151:281002

TITLE: Methods and compositions for adeno-associated virus

(AAV) with HI loop mutations

INVENTOR(S): Diprimio, Nina; Samulski, Richard Jude

PATENT ASSIGNEE(S): University of North Carolina at Chapel Hill, USA

SOURCE: U.S. Pat. Appl. Publ., 118pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATE | ENT 1 | .OV          |     |     | KIN      | D   | DATE         |      |     | APPL | ICAT               | I NOI | .O  |     | DZ  | ATE                |     |
|------|-------|--------------|-----|-----|----------|-----|--------------|------|-----|------|--------------------|-------|-----|-----|-----|--------------------|-----|
|      |       | 0215<br>1082 |     |     | A1<br>A2 |     | 2009<br>2009 |      |     |      | <br>009-:<br>009-1 |       |     |     |     | <br>00902<br>00902 |     |
| WO 2 | 2009  | 1082         | 74  |     | АЗ       |     | 2010         | 0107 |     |      |                    |       |     |     |     |                    |     |
|      | W:    | ΑE,          | AG, | AL, | AM,      | ΑO, | ΑT,          | ΑU,  | AΖ, | BA,  | BB,                | BG,   | BH, | BR, | BW, | BY,                | BΖ, |
|      |       | CA,          | CH, | CN, | CO,      | CR, | CU,          | CZ,  | DE, | DK,  | DM,                | DO,   | DZ, | EC, | EE, | EG,                | ES, |
|      |       | FΙ,          | GB, | GD, | GE,      | GH, | GM,          | GT,  | HN, | HR,  | HU,                | ID,   | IL, | IN, | IS, | JP,                | ΚE, |
|      |       | KG,          | KM, | KN, | KP,      | KR, | KΖ,          | LA,  | LC, | LK,  | LR,                | LS,   | LT, | LU, | LY, | MA,                | MD, |
|      |       | ME,          | MG, | MK, | MN,      | MW, | MX,          | MY,  | MZ, | NA,  | NG,                | NΙ,   | NO, | NZ, | OM, | PG,                | PH, |
|      |       | PL,          | PT, | RO, | RS,      | RU, | SC,          | SD,  | SE, | SG,  | SK,                | SL,   | SM, | ST, | SV, | SY,                | ТJ, |
|      |       | TM,          | TN, | TR, | TT,      | TZ, | UA,          | UG,  | US, | UZ,  | VC,                | VN,   | ZA, | ZM, | ZW  |                    |     |
|      | RW:   | AT,          | BE, | BG, | CH,      | CY, | CZ,          | DE,  | DK, | EE,  | ES,                | FΙ,   | FR, | GB, | GR, | HR,                | HU, |
|      |       | IE,          | IS, | IT, | LT,      | LU, | LV,          | MC,  | MK, | MT,  | NL,                | NO,   | PL, | PT, | RO, | SE,                | SI, |
|      |       | SK,          | TR, | BF, | ВJ,      | CF, | CG,          | CI,  | CM, | GΑ,  | GN,                | GQ,   | GW, | ML, | MR, | NE,                | SN, |
|      |       | TD,          | TG, | BW, | GH,      | GM, | KE,          | LS,  | MW, | MZ,  | NA,                | SD,   | SL, | SZ, | TZ, | UG,                | ZM, |
|      |       | ZW,          | AM, | AZ, | BY,      | KG, | KΖ,          | MD,  | RU, | ΤJ,  | TM,                | AP,   | EA, | EP, | OA  | ,                  |     |
| RITY | APP:  | •            | •   | •   | ,        | ·   | ,            | ,    |     |      |                    |       |     |     |     | 00802              | 226 |

PRIORITY APPLN. INFO.: US 2008-31581P P ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention provides modified AAV capsid proteins comprising substitutions in the HI loop. Suitable substitutions include affinity tags, sequences that facilitate detection and/or targeting peptides. The invention also provides virus capsids and virus vectors comprising the modified AAV capsid proteins and methods of using the same. Further provided are methods of purifying the modified AAV capsid subunits, virus capsids and virus vectors of the invention.

#### IT 1182714-32-4

RL: PRP (Properties)

(unclaimed protein sequence; methods and compns. for adeno-associated virus (AAV) with HI loop mutations)

RN 1182714-32-4 HCAPLUS

CN L-Tryptophan, L-isoleucyl-L-lysyl-L-asparaginyl-L-asparaginyl-L- $\alpha$ -glutamyl-L-methionyl- (CA INDEX NAME)

L3 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:720268 HCAPLUS

Correction of: 2009:592717

DOCUMENT NUMBER: 151:6802

Correction of: 150:512998

TITLE: Multimers of MHC complexed with Mycobacterium

tuberculosis peptide as vaccine and for diagnosis,

prognosis and therapy of tuberculosis

INVENTOR(S): Scholler, Jorgen; Brix, Liselotte; Pedersen, Henrik;

Jakobsen, Tina

PATENT ASSIGNEE(S): Dako Denmark A/S, Den. SOURCE: PCT Int. Appl., 1642pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 27

PATENT INFORMATION:

| PA'     | PATENT NO. |             |        |     |             |      | KIND DATE |      |          | APPLICATION NO. |           |       |     |     |     | DATE |     |  |  |
|---------|------------|-------------|--------|-----|-------------|------|-----------|------|----------|-----------------|-----------|-------|-----|-----|-----|------|-----|--|--|
| WO      | 2009       | 0398        | <br>54 |     | A2 20090402 |      |           | 1    | <br>WO 2 | 008-            | <br>XD33! | <br>9 |     |     |     |      |     |  |  |
|         | W:         | ΑE,         | AG,    | AL, | AM,         | AO,  | AT,       | AU,  | AZ,      | BA,             | BB,       | BG,   | BH, | BR, | BW, | BY,  | BZ, |  |  |
|         |            | CA,         | CH,    | CN, | CO,         | CR,  | CU,       | CZ,  | DE,      | DK,             | DM,       | DO,   | DZ, | EC, | EE, | EG,  | ES, |  |  |
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|         |            | KG,         | KM,    | KN, | KP,         | KR,  | KΖ,       | LA,  | LC,      | LK,             | LR,       | LS,   | LT, | LU, | LY, | MA,  | MD, |  |  |
|         |            | ${ m ME}$ , | MG,    | MK, | MN,         | MW,  | MX,       | MY,  | MZ,      | NA,             | NG,       | NΙ,   | NO, | NΖ, | OM, | PG,  | PH, |  |  |
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|         |            | TM,         | TN,    | TR, | TT,         | TZ,  | UA,       | UG,  | US,      | UZ,             | VC,       | VN,   | ZA, | ZM, | ZW  |      |     |  |  |
|         | RW:        | ΑT,         | BE,    | BG, | CH,         | CY,  | CZ,       | DE,  | DK,      | EE,             | ES,       | FI,   | FR, | GB, | GR, | HR,  | HU, |  |  |
|         |            | ΙE,         | IS,    | IT, | LT,         | LU,  | LV,       | MC,  | MT,      | NL,             | NO,       | PL,   | PT, | RO, | SE, | SI,  | SK, |  |  |
|         |            | TR,         | BF,    | ВJ, | CF,         | CG,  | CI,       | CM,  | GΑ,      | GN,             | GQ,       | GW,   | ML, | MR, | NE, | SN,  | TD, |  |  |
|         |            | TG,         | BW,    | GH, | GM,         | KΕ,  | LS,       | MW,  | MZ,      | NA,             | SD,       | SL,   | SZ, | TZ, | UG, | ZM,  | ZW, |  |  |
|         |            | ΑM,         | ΑZ,    | BY, | KG,         | KΖ,  | MD,       | RU,  | ΤJ,      | $_{ m TM}$      |           |       |     |     |     |      |     |  |  |
| PRIORIT | Y APP      | LN.         | INFO   | .:  |             |      |           |      |          | DK 2            | 007-      | 1395  |     | Ž   | A 2 | 0070 | 927 |  |  |
|         |            |             |        |     | 1           | US 2 | 007-      | 9603 | 94P      | ]               | P 2       | 0070  | 927 |     |     |      |     |  |  |

AB The present invention relates to MHC-peptide complexes and uses thereof in the diagnosis of, treatment of or vaccination against a disease in an individual. More specifically the invention discloses MHC complexes comprising Mycobacterium tuberculosis antigenic peptides and uses there of. [This abstract record is one of 51 records for this document necessitated by the large number of index entries required to fully index the

IT 1159328-30-9 1159328-31-0 1159329-54-0 1159329-55-1 1159330-92-3

document and publication system constraints].

RL: PRP (Properties)

(unclaimed protein sequence; multimers of MHC complexed with Mycobacterium tuberculosis peptide as vaccine and for diagnosis, prognosis and therapy of tuberculosis)

RN 1159328-30-9 HCAPLUS

CN L-Phenylalanine, L-threonyl-L- $\alpha$ -glutamyl-L-threonyl-L-lysyl-L-asparaginyl-L- $\alpha$ -glutamyl- (CA INDEX NAME)

Ph 
$$S CO_2H$$
 $HO_2C$ 
 $S N S$ 
 $HO_2C$ 
 $S$ 
 $HO_2C$ 
 $S$ 
 $HO_2C$ 
 $S$ 
 $HO_2C$ 
 $S$ 
 $HO_2C$ 
 $S$ 
 $HO_2C$ 
 $S$ 
 $HO_2C$ 
 $HO_2C$ 
 $S$ 
 $HO_2C$ 
 $HO$ 

RN 1159328-31-0 HCAPLUS

CN L-Arginine, L- $\alpha$ -glutamyl-L-threonyl-L-lysyl-L-asparaginyl-L-asparaginyl-L-phenylalanyl- (CA INDEX NAME)

RN 1159329-54-0 HCAPLUS

CN L-Arginine, L-threonyl-L- $\alpha$ -glutamyl-L-threonyl-L-lysyl-L-asparaginyl-L-asparaginyl-L- $\alpha$ -glutamyl-L-phenylalanyl- (CA INDEX NAME)

RN 1159329-55-1 HCAPLUS

CN L-Valine, L- $\alpha$ -qlutamyl-L-threonyl-L-lysyl-L-asparaginyl-L-asparaginyl-L-a-glutamyl-L-phenylalanyl-L-arginyl- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

RN 1159330-92-3 HCAPLUS

T.S. Heard Ph.D. Page 9

CN L-Phenylalanine, L-isoleucyl-L-prolyl-L-threonyl-L- $\alpha$ -glutamyl-L-threonyl-L-lysyl-L-asparaginyl-L-asparaginyl-L- $\alpha$ -glutamyl- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

L3 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:1297675 HCAPLUS

DOCUMENT NUMBER: 149:507515

TITLE: Identification, isolation and therapeutic and diagnostic uses of replikins, peptides related to

rapid cell replication and high human mortality

Bogoch, Samuel; Bogoch, Elenore S. INVENTOR(S):

PATENT ASSIGNEE(S):

U.S., 221pp. SOURCE: CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 11

PATENT INFORMATION:

| PATENT NO.                     | KIND DATE                  | APPLICATION NO.                   | DATE                 |
|--------------------------------|----------------------------|-----------------------------------|----------------------|
| US 7442761                     | B2 20081028                | US 2004-860050                    | 20040604             |
| US 20050202415                 | A1 20050915                |                                   |                      |
| AU 2004259640                  | A1 20050203                | AU 2004-259640                    | 20040607             |
| CA 2528440                     | A1 20050203                | CA 2004-2528440                   | 20040607             |
| WO 2005010032                  | A2 20050203                | WO 2004-US17936                   | 20040607             |
| WO 2005010032                  | A3 20050609                |                                   |                      |
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| TJ, TM, TN,                    |                            | UG, US, UZ, VC, VN,               |                      |
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| EP 1636254                     | A2 20060322                | EP 2004-785929                    | 20040607             |
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| JP 2007526222                  | T 20070913                 | JP 2006-515241                    | 20040607             |
| NZ 544277                      | A 20090228                 | NZ 2004-544277                    | 20040607             |
| AU 2005237587<br>CA 2565006    | A1 20051110<br>A1 20051110 | AU 2005-237587<br>CA 2005-2565006 | 20050428<br>20050428 |
| WO 2005104754                  | A2 20051110<br>A2 20051110 | WO 2005-US14443                   | 20050428             |
| WO 2005104754<br>WO 2005104754 | A3 20060713                | WO 2005-0514445                   | 20030420             |
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| US 20060024669                 | A1 20060202                | US 2005-116203                    | 20050428             |
| EP 1745401                     | A2 20070124                | EP 2005-743059                    | 20050428             |

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                                                             W 20050428
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AB The present invention provides replikins, a new class of peptides related to rapid cell replication and high human mortality, and their use in diagnosing, preventing and treating disease. An algorithm to search for replikins was constructed. The replikins have from 7 to about 50 amino acids comprising (1) at least one lysine residue located 6-10 residues from a second lysine residue, (2) at least one histidine residues, and (3) at least 6% lysine residues. Replikins have been found in viruses (i.e. coronavirus, influenza virus, SARS virus), bacteria, fungi, cancer associated proteins, plants and unicellular parasites. Extraction, isolation and identification of replikins and the use of replikins to target, label or destroy replikin-containing organisms is described. The amino acid sequences of coronaviral replikins are disclosed. Synthetic replikins were devised for the use as anti-SARS vaccines.

# IT 605635-66-3

RL: PRP (Properties)

(unclaimed protein sequence; identification, isolation and therapeutic and diagnostic uses of replikins, peptides related to rapid cell replication and high human mortality)

RN 605635-66-3 HCAPLUS

CN L-Lysine, L-histidyl-L-lysyl-L-asparaginyl-L-asparaginyl-L- $\alpha$ -glutamyl-L- $\alpha$ -aspartyl-L-isoleucyl- (CA INDEX NAME)

PAGE 2-A

REFERENCE COUNT:

77 THERE ARE 77 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L3 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:817917 HCAPLUS

DOCUMENT NUMBER: 139:322282

TITLE: Replikin peptides and antibodies: diagnosis and

therapy

INVENTOR(S): Bogoch, Samuel; Bogoch, Elenore S.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 187 pp., Cont.-in-part of U.S.

Ser. No. 105,232.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 11

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| US 20030194414         | A1   | 20031016 | US 2002-189437  | 20020708    |
| US 7452963             | В2   | 20081118 |                 |             |
| US 20020151677         | A1   | 20021017 | US 2001-984057  | 20011026    |
| US 7420028             | В2   | 20080902 |                 |             |
| US 20030180328         | A1   | 20030925 | US 2002-105232  | 20020326    |
| US 7189800             | B2   | 20070313 |                 |             |
| US 20060024669         | A1   | 20060202 | US 2005-116203  | 20050428    |
| US 20070026009         | A1   | 20070201 | US 2006-355120  | 20060216    |
| US 20090137778         | A1   | 20090528 | US 2008-252028  | 20081015    |
| PRIORITY APPLN. INFO.: |      |          | US 2001-278761P | P 20010327  |
|                        |      |          | US 2001-303396P | P 20010709  |
|                        |      |          | US 2001-984057  | A2 20011026 |
|                        |      |          | US 2002-105232  | A2 20020326 |
|                        |      |          | US 1994-198139  | B2 19940217 |
|                        |      |          | US 1998-146755  | A2 19980904 |
|                        |      |          | US 2001-817144  | A2 20010327 |
|                        |      |          | US 2002-189437  | A2 20020708 |
|                        |      |          | US 2003-476186P | P 20030606  |
|                        |      |          | US 2003-504958P | P 20030923  |
|                        |      |          | US 2003-531686P | P 20031223  |
|                        |      |          | US 2004-565847P | P 20040428  |
|                        |      |          | US 2004-860050  | A2 20040604 |
|                        |      |          | US 2005-653083P | P 20050216  |
|                        |      |          | US 2005-116203  | A2 20050428 |

The authors disclose a new class of peptides related to rapid replication AB and their use in diagnosing, preventing and treating disease.

#### ΙT 605635-66-3

RL: PRP (Properties)

(unclaimed sequence; replikin peptides and antibodies, diagnosis and therapy)

RN 605635-66-3 HCAPLUS

CN L-Lysine, L-histidyl-L-lysyl-L-asparaginyl-L-asparaginyl-L- $\alpha$ glutamyl-L- $\alpha$ -aspartyl-L-isoleucyl- (CA INDEX NAME)

PAGE 2-A

OS.CITING REF COUNT:

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT:

THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

1

64

L3 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:757014 HCAPLUS

DOCUMENT NUMBER: 139:275721

TITLE: Replikin peptides in rapid replication of glioma cells

and in influenza and malaria epidemics

INVENTOR(S): Bogoch, Samuel; Bogoch, Elenore S.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 136 pp., Cont.-in-part of U.S.

Ser. No. 984,057.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 11

PATENT INFORMATION:

| PATENT NO.   | KIND DATE   | APPLICATION NO.   | DATE  |
|--|---|---|---|
| US 20030180328<br>US 7189800   | A1 20030925<br>B2 20070313  | US 2002-105232  | 20020326  |
| US 20020151677<br>US 7420028   | A1 20021017<br>B2 20080902  | US 2001-984057  | 20011026  |
| US 20030194414<br>US 7452963   | A1 20031016<br>B2 20081118  | US 2002-189437  | 20020708  |
| CA 2481232<br>WO 2003083058  | A1 20031009<br>A2 20031009  |   | 20030325<br>20030325  |
| WO 2003083058  | A3 20060216   |   |   |
| W: AE, AG, AL, CO, CR, CU, GM, HR, HU, LS, LT, LU, PH, PL, PT, UA, UG, US, RW: GH, GM, KE, KG, KZ, MD, FI, FR, GB, BF, BJ, CF, AU 2003224758 EP 1578922 R: AT, BE, CH, IE, SI, LT, CN 1893966 US 20060024669 US 20070026009 US 20070053916 | AM, AT, AU, AZ, CZ, DE, DK, DM, ID, IL, IN, IS, LV, MA, MD, MG, RO, RU, SD, SE, UZ, VN, YU, ZA, LS, MW, MZ, SD, RU, TJ, TM, AT, GR, HU, IE, IT, CG, CI, CM, GA, A1 20031013 A2 20050928 DE, DK, ES, FR, | SL, SZ, TZ, UG, ZM, ZW, BE, BG, CH, CY, CZ, DE, LU, MC, NL, PT, RO, SE, GN, GQ, GW, ML, MR, NE, AU 2003-224758 EP 2003-721445 GB, GR, IT, LI, LU, NL, CY, AL, TR, BG, CZ, EE, CN 2003-810902 US 2005-116203 US 2006-355120 US 2006-590852 US 2008-252028 US 2009-412888 US 2009-412888 US 2009-495306 US 2001-278761P US 2001-3033396P US 2001-984057 US 1994-198139 US 1998-146755 US 2001-817144 US 2002-105232 | GD, GE, GH, LC, LK, LR, NO, NZ, OM, TR, TT, TZ,  AM, AZ, BY, DK, EE, ES, SI, SK, TR, SN, TD, TG 20030325 20030325 SE, MC, PT, HU, SK 20030325 20050428 20060216 20061101 20081015 20090327 20090630 20010327 20090630 20010327 20010709 220011026 219940217 219980904 220010327 220020326 |
|  |   | US 2002-189437 A WO 2003-US8990 W US 2003-476186P P   |   |

| US | 2003-504958P | P  | 20030923 |
|----|--------------|----|----------|
| US | 2003-531686P | Р  | 20031223 |
| US | 2004-565847P | P  | 20040428 |
| US | 2004-860050  | Α2 | 20040604 |
| US | 2005-653083P | P  | 20050216 |
| US | 2005-116203  | Α2 | 20050428 |
| US | 2006-590852  | А3 | 20061101 |

AB Peptides of glioma (e.g., malignin), influenza virus hemagglutinin and neuraminidase protein, and Plasmodium falciparum malaria antigen are provided as members of a new family of small peptides related to the phenomenon of rapid replication and designated Replikins. The Replikins have from 7 to about 50 amino acids comprising (1) at least one lysine residue located 6-10 residues from a second lysine residue, (2) at least one histidine residues, and (3) at least 6% lysine residues. Antibodies specific for the peptides, influenza vaccines, malaria vaccines, and methods of stimulating the immune response of a subject to produce antibodies to influenza virus or malaria are disclosed. Also disclosed are methods for formulating vaccines for influenza virus.

### IT 605635-66-3

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (from Plasmodium falciparum; Replikin peptides in rapid replication of glioma cells and in influenza and malaria epidemics)

RN 605635-66-3 HCAPLUS

CN L-Lysine, L-histidyl-L-lysyl-L-asparaginyl-L-asparaginyl-L- $\alpha$ -glutamyl-L- $\alpha$ -aspartyl-L-isoleucyl- (CA INDEX NAME)

O 
$$CO_2H$$

N  $S$ 

R  $S$ 

Me Et.

PAGE 2-A

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

INVENTOR(S):

L3 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2002:777966 HCAPLUS

DOCUMENT NUMBER: 137:275674

TITLE: Sequence homologs of HmwA proteins identified in

non-typable Haemophilus influenzae with possible

therapeutic uses Thonnard, Joelle

PATENT ASSIGNEE(S): Glaxosmithkline Biologicals S.A., Belg.

SOURCE: PCT Int. Appl., 109 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

|      | PAT                   | CENT 1  | NO. |            |            | KIND DATE                  |            |                   | -                    | APPL       | ICAT                             | ION 1      | NO.        | DATE<br>   |                         |            |            |     |
|------|-----------------------|---|-----|------------|------------|----------------------------|------------|-------------------|----------------------|------------|----------------------------------|------------|------------|------------|-------------------------|------------|------------|-----|
|      |                       |   |     | _          |            | A2 20021010<br>A3 20030313 |            |                   | ;                    | WO 2       | 002-                             |            | 20020312   |            |                         |            |            |     |
|      |                       | W: AE, AG, AL,<br>CO, CR, CU,<br>GM, HR, HU,<br>LS, LT, LU, |     | CU,<br>HU, | CZ,<br>ID, | DE,<br>IL,                 | DK,<br>IN, | DM,<br>IS,        | DZ,<br>JP,           | EC,<br>KE, | EE,<br>KG,                       | ES,<br>KP, | FI,<br>KR, | GB,<br>KZ, | GD,<br>LC,              | GE,<br>LK, | GH,<br>LR, |     |
|      |                       |   | PL, | PT,        | RO,        | RU,                        | SD,        | MD,<br>SE,<br>YU, | SG,                  | SI,        | SK,                              |            |            |            |                         |            |            |     |
|      |                       | RW:   | CY, | DE,        | DK,        | ES,                        | FI,        | MZ,<br>FR,        | GB,                  | GR,        | IE,                              | IT,        | LU,        | MC,        | NL,                     | PT,        | SE,        | TR, |
|      | CA                    | 2440  | •   | •          | •          | A1                         |            | CM, 2002          | •                    |            |                                  |            |            |            |                         |            |            |     |
|      |                       | 2002.<br>1370.  |     |            |            |                            |            |                   |                      |            | AU 2002-315262<br>EP 2002-740433 |            |            |            |                         |            |            |     |
|      |                       | R:  |     |            |            |                            |            | ES,<br>RO,        |                      |            |                                  |            | LI,        | LU,        | NL,                     | SE,        | MC,        | PT, |
| DDIO | US 20040171805        |   |     |            |            | •                          |            |                   | US 2                 | 004-       |                                  |            | 20040402   |            |                         |            |            |     |
| PKIO | RIORITY APPLN. INFO.: |   |     |            |            |                            |            |                   | GB 2<br>GB 2<br>WO 2 | 001-       | 6156                             |            | i          | A 2        | 0010.<br>0010.<br>0020. | 313        |            |     |

AB The invention provides BASB223 and BASB224 polypeptides and polynucleotides encoding BASB223 and BASB224 polypeptides and methods for producing such polypeptides by recombinant techniques. These proteins are sequence homologs of HmwA proteins. Also provided are diagnostic, prophylactic and therapeutic uses.

IT 466687-73-0 466688-47-1

RL: PRP (Properties)

(unclaimed sequence; sequence homologs of HmwA proteins identified in non-typable Haemophilus influenzae with possible therapeutic uses)

RN 466687-73-0 HCAPLUS

CN L-Lysine, glycyl-L-lysyl-L-asparaginyl-L-asparaginyl-L- $\alpha$ -glutamyl-L-methionyl- (9CI) (CA INDEX NAME)

$$H_2N$$
 $H_2N$ 
 $H_2N$ 

RN 466688-47-1 HCAPLUS

CN L-Glutamic acid, L-valyl-L-lysyl-L-phenylalanyl-L-tyrosylglycyl-L-lysyl-L-asparaginyl-(9CI) (CA INDEX NAME)

PAGE 1-B

CO2H

REFERENCE COUNT:

1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT AUTHOR(S):

L3 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2001:483753 HCAPLUS

DOCUMENT NUMBER: 135:317094

TITLE: Efficient discovery of immune response targets by

cyclical refinement of QSAR models of peptide binding Brusic, V.; Bucci, K.; Schonbach, C.; Petrovsky, N.;

Zeleznikow, J.; Kazura, J. W.

CORPORATE SOURCE: Kent Ridge Digital Labs, BIC-KRDL, Singapore

SOURCE: Journal of Molecular Graphics & Modelling (2001),

19(5), 405-411

CODEN: JMGMFI; ISSN: 1093-3263

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Peptides that induce and recall T-cell responses are called T-cell epitopes. T-cell epitopes may be useful in a subunit vaccine against malaria. Computer models that simulate peptide binding to MHC are useful for selecting candidate T-cell epitopes since they minimize the number of expts. required for their identification. The authors applied a combination of computational and immunol. strategies to select candidate T-cell epitopes. A total of 86 exptl. binding assays were performed in three rounds of identification of HLA-All binding peptides from the six pre-erythrocytic malaria antigens. Thirty-six peptides were exptl. confirmed as binders. The authors show that the cyclical refinement of the ANN models results in a significant improvement of the efficiency of identifying potential T-cell epitopes.

#### IT 368859-71-6

RL: BSU (Biological study, unclassified); BIOL (Biological study) (cyclical refinement of QSAR models predict HLA-A11-restricted T-cell epitopes of)

RN 368859-71-6 HCAPLUS

CN L-Lysine, L-lysyl-L-threonyl-L-lysyl-L-asparaginyl-L-asparaginyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-asparaginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

OS.CITING REF COUNT: 23 THERE ARE 23 CAPLUS RECORDS THAT CITE THIS

RECORD (23 CITINGS)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2001:435104 HCAPLUS

DOCUMENT NUMBER: 135:40999

TITLE: Complementary peptide ligands generated from microbial

genome sequences

INVENTOR(S): Roberts, Gareth Wyn; Heal, Jonathan Richard

PATENT ASSIGNEE(S): Proteom Limited, UK SOURCE: PCT Int. Appl., 161 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PAT      | PATENT NO.                         |     |            |     |                            |             | DATE       |     |      | APPL:                 | ICAT | ION 1  | NO. |     | DATE |                |     |
|----------|------------------------------------|-----|------------|-----|----------------------------|-------------|------------|-----|------|-----------------------|------|--------|-----|-----|------|----------------|-----|
|          | 20010<br>20010                     |     |            |     | A2 20010614<br>A3 20011108 |             |            | ,   | WO 2 | 000-                  | GB47 | 78     |     |     | 0001 |                |     |
| VV -     | W: AE, AG, AL,<br>CR, CU, CZ,      |     |            | AM, | AT,                        | AU,         | AZ,        | •   | •    | •                     | •    | •      | •   | •   | •    | •              |     |
|          |                                    | HU, | ID,        | IL, | IN,                        | IS,         | JP,        | KE, | KG,  | KP,                   | KR,  | KZ,    | LC, | LK, | LR,  | LS,            | LT, |
|          |                                    |     |            | •   | •                          |             | MK,<br>SL, |     | •    | •                     | •    | •      | •   | •   |      | •              | •   |
|          | RW:                                |     | ZA,<br>GM, |     | LS,                        | MW,         | MZ,        | SD, | SL,  | SZ,                   | TZ,  | UG,    | ZW, | AT, | BE,  | CH,            | CY, |
|          |                                    |     |            | •   | •                          |             | GB,<br>GA, |     | •    | •                     | ,    | ,      | ,   | •   |      | TR,            | BF, |
|          | US 20030199011<br>EP 1237905       |     |            |     |                            | ·           | 20031023   |     | Ţ,   |                       |      | 573822 |     | ·   | 2    |                |     |
| ш        |                                    | AT, | BE,        | CH, | DE,                        | DK,         | ES,        | FR, | GB,  | GR,                   | IT,  |        |     |     |      |                |     |
| PRIORITY | IE, SI, LT, PRIORITY APPLN. INFO.: |     |            |     |                            | <b>Ε</b> 1, | ко,        | MK, |      | AL,<br>GB 1:<br>WO 2: | 999- |        | -   |     |      | 9991.<br>0001. |     |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention relates to the identification of complementary peptides from the anal. of protein and nucleotide sequence databases from the microbial genomes including pathogenic microbes. These specific complementary peptides interact with their relevant target proteins encoded in the microbial genome. Specific complementary peptides to the proteins encoded in the microbial genome can be used as reagents and drugs from drug discovery programs and as lead ligands to facilitate drug design and development.

### IT 344601-35-0

RL: PRP (Properties)

(unclaimed sequence; complementary peptide ligands generated from microbial genome sequences)

RN 344601-35-0 HCAPLUS

CN L-Glutamic acid, L- $\alpha$ -glutamyl-L-isoleucyl-L-leucyl-L-lysyl-L-isoleucyl-L-phenylalanyl-L-lysyl-L-asparaginyl-L-asparaginyl- (9CI) (CA INDEX NAME)

PAGE 2-A

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

5

L3 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2001:12663 HCAPLUS

DOCUMENT NUMBER: 134:85124

TITLE: Cancer associated antigens and uses therefor INVENTOR(S): Sahin, Ugur; Tureci, Ozlem; Pfreundschuh, Michael

PATENT ASSIGNEE(S): Ludwig Institute for Cancer Research, USA

SOURCE: PCT Int. Appl., 128 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

|       | CENT :                 | KIN: | D   | DATE |     |             | APPLICATION NO. |      |      |      |       |           | DATE |         |     |      |      |         |
|-------|------------------------|------|-----|------|-----|-------------|-----------------|------|------|------|-------|-----------|------|---------|-----|------|------|---------|
|       | WO 2001000874          |      |     |      |     |             | A2 20010104     |      |      |      |       | <br>2000- | US17 | <br>207 |     | 2    | 0000 | <br>623 |
|       | WO 2001000874          |      |     |      |     | A3 20020502 |                 |      |      |      |       |           |      |         |     |      |      |         |
|       |                        | W:   | ΑU, | CA,  | CN, | JP,         | KR              |      |      |      |       |           |      |         |     |      |      |         |
|       |                        | RW:  | AT, | BE,  | CH, | CY,         | DE,             | DK,  | ES,  | FI,  | FR    | , GB,     | GR,  | ΙE,     | ΙΤ, | LU,  | MC,  | NL,     |
|       |                        |      | PT, | SE   |     |             |                 |      |      |      |       |           |      |         |     |      |      |         |
|       | ΕP                     | 1218 | 538 |      |     | A2          |                 | 2002 | 0703 |      | EP .  | 2000-     | 9416 | 44      |     | 2    | 0000 | 623     |
|       |                        | R:   | ΑT, | BE,  | CH, | DE,         | DK,             | ES,  | FR,  | GB,  | GR    | , IT,     | LI,  | LU,     | NL, | SE,  | MC,  | PT,     |
|       |                        |      | IE, | FI,  | CY  |             |                 |      |      |      |       |           |      |         |     |      |      |         |
|       | JP 2003527826          |      |     |      | T   |             | 2003            | 0924 |      | JP . | 2001- | 5068      | 64   |         | 2   | 0000 | 623  |         |
| PRIOR | PRIORITY APPLN. INFO.: |      |     |      |     |             |                 |      |      | US   | 1999- | 3464      | 98   |         | A 1 | 9990 | 630  |         |

AB Cancer associated antigens have been identified by autologous antibody screening of libraries of nucleic acids expressed in testis cells using antisera from seminoma patients. The invention relates to nucleic acids and encoded polypeptides which are cancer associated antigens expressed in patients afflicted with a variety of cancers. The invention provides, inter alia, isolated nucleic acid mols., expression vectors containing those mols. and host cells transfected with those mols. The invention also provides isolated proteins and peptides, antibodies to those proteins and peptides and cytotoxic T lymphocytes which recognize the proteins and peptides. Fragments of the foregoing including functional fragments and variants also are provided. Kits containing the foregoing mols. addnl. are provided. The mols. provided by the invention can be used in the diagnosis, monitoring, research, or treatment of conditions characterized by the expression of one or more cancer associated antigens.

WO 2000-US17207

W 20000623

IT 317804-03-8 317804-04-9

RL: PRP (Properties)

(unclaimed sequence; cancer associated antigens and uses therefor)

RN 317804-03-8 HCAPLUS

CN L-Valine, L-tryptophyl-L-leucyl-L-leucyl-L-valyl-L-lysyl-L-asparaginyl-L-asparaginyl-L-asparaginyl-L-glutaminyl- (9CI) (CA INDEX NAME)

RN 317804-04-9 HCAPLUS

CN L-Valine, L-leucyl-L-leucyl-L-valyl-L-lysyl-L-asparaginyl-L-asparaginyl-L-  $\alpha$ -glutamyl-L-glutaminyl- (9CI) (CA INDEX NAME)

PAGE 2-A

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN T.3

ACCESSION NUMBER: 1999:626211 HCAPLUS

DOCUMENT NUMBER: 131:267042

TITLE: Use of inhibitors of mammalian asparaginyl

endopeptidase for therapy of autoimmune disease

INVENTOR(S): Watts, Colin

PATENT ASSIGNEE(S): University of Dundee, UK SOURCE: PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PAI  | CENT I | .OV    |      |     | KIN      | D   | DATE     |      |     | APPL     | ICAT  | ION :    | NO.   |     | D.  | ATE      |     |
|------|--------|--------|------|-----|----------|-----|----------|------|-----|----------|-------|----------|-------|-----|-----|----------|-----|
| WO   | 9948   | 910    |      |     | A1       | _   | <br>1999 | 0930 |     | <br>WO 1 | .999- | <br>GB96 | <br>3 |     | 1   | <br>9990 | 326 |
|      | W:     | AL,    | AM,  | ΑT, | ΑU,      | ΑZ, | BA,      | BB,  | BG, | BR,      | BY,   | CA,      | CH,   | CN, | CU, | CZ,      | DE, |
|      |        | DK,    | EE,  | ES, | FΙ,      | GB, | GD,      | GE,  | GH, | GM,      | HR,   | HU,      | ID,   | IL, | IN, | IS,      | JP, |
|      |        | KE,    | KG,  | KP, | KR,      | KΖ, | LC,      | LK,  | LR, | LS,      | LT,   | LU,      | LV,   | MD, | MG, | MK,      | MN, |
|      |        | MW,    | MX,  | NO, | NZ,      | PL, | PT,      | RO,  | RU, | SD,      | SE,   | SG,      | SI,   | SK, | SL, | ΤJ,      | TM, |
|      |        | TR,    | TT,  | UA, | UG,      | US, | UZ,      | VN,  | YU, | ZA,      | ZW    |          |       |     |     |          |     |
|      | RW:    | GH,    | GM,  | ΚE, | LS,      | MW, | SD,      | SL,  | SZ, | UG,      | ZW,   | ΑT,      | BE,   | CH, | CY, | DE,      | DK, |
|      |        | ES,    | FΙ,  | FR, | GB,      | GR, | ΙE,      | ΙΤ,  | LU, | MC,      | NL,   | PT,      | SE,   | BF, | ВJ, | CF,      | CG, |
|      |        | CI,    | CM,  | GΑ, | GN,      | GW, | ML,      | MR,  | ΝE, | SN,      | TD,   | ΤG       |       |     |     |          |     |
| CA   | 2323   | 063    |      |     | A1       |     | 1999     | 0930 |     | CA 1     | 999-  | 2323     | 063   |     | 1   | 9990     | 326 |
| AU   | 9931   | 582    |      |     | Α        |     | 1999     | 1018 |     | AU 1     | 999-  | 3158     | 2     |     | 1   | 9990     | 326 |
| AU   | 7563   | 56     |      |     | В2       |     | 2003     | 0109 |     |          |       |          |       |     |     |          |     |
| EP   | 1066   | 315    |      |     | A1       |     | 2001     | 0110 |     | EP 1     | 999-  | 9134     | 64    |     | 1   | 9990     | 326 |
| EP   | 1066   | 315    |      |     | В1       |     | 2008     | 0528 |     |          |       |          |       |     |     |          |     |
|      | R:     | AT,    | BE,  | CH, | DE,      | DK, | ES,      | FR,  | GB, | GR,      | ΙΤ,   | LI,      | LU,   | NL, | SE, | MC,      | PT, |
|      |        | ΙE,    | SI,  | LT, | LV,      | FI, | RO,      | CY,  | AL, | MK       |       |          |       |     |     |          |     |
| JP   | 2002   | 5076.  | 23   |     | ${ m T}$ |     | 2002     | 0312 |     | JP 2     | 000-  | 5378     | 92    |     | 1   | 9990     | 326 |
|      | 1380   |        |      |     | Α        |     | 2006     | 0312 |     | IL 1     | 999-  | 1380     | 48    |     | 1   | 9990     | 326 |
| ΑT   | 3970   | 11     |      |     | Τ        |     | 2008     | 0615 |     | AT 1     | 999-  | 9134     | 64    |     | 1   | 9990     | 326 |
| IN   | 20001  | 0 0 MM | 384  |     | Α        |     | 2005     | 0715 |     | IN 2     | 000-1 | 8 EMM    | 4     |     | 2   | 0000     | 908 |
| TIAC | APP:   | LN.    | INFO | .:  |          |     |          |      |     | GB 1     | 998-  | 6442     |       |     | A 1 | 9980     | 326 |
|      |        |        |      |     |          |     |          |      |     | US 1     | 998-  | 8696     | 6P    |     | P 1 | 9980     | 528 |
|      |        |        |      |     |          |     |          |      |     | WO 1     | 999-  | GB96     | 3     | 1   | W 1 | 9990     | 326 |

- AB A method of modulating the immune response in a patient in need of such modulation comprises administering to the patient an effective amount of an inhibitor of asparaginyl endopeptidase. A method of reducing the processing of a protein antigen by a MHC Class II mol. by a cell comprises contacting the cell with an inhibitor of asparaginyl endopeptidase.
- 245036-47-9D, amino- and carboxyl-terminal-blocked RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(asparaginyl endopeptidase inhibitors for immunomodulators)

245036-47-9 HCAPLUS RN

 $L-\alpha$ -Glutamine, L-lysyl-L-asparaginyl-L-asparaginyl- (9CI) (CA INDEX CN NAME)

09/646,950

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1999:24490 HCAPLUS

DOCUMENT NUMBER: 130:195463

TITLE: An asparaginyl endopeptidase processes a microbial

antigen for class II MHC presentation

AUTHOR(S): Manoury, Benedicte; Hewitt, Eric W.; Morrice, Nick;

Dando, Pam M.; Barrett, Alan J.; Watts, Colin
Department of Biochemistry, Wellcome Sciences

CORPORATE SOURCE: Department of Biochemistry, Wellcome Sciences

Building, University of Dundee, Dundee, DD1 5EH, UK

SOURCE: Nature (London) (1998), 396(6712), 695-699

CODEN: NATUAS; ISSN: 0028-0836

PUBLISHER: Macmillan Magazines

DOCUMENT TYPE: Journal LANGUAGE: English

Foreign protein antigens must be broken down within endosomes or lysosomes to generate suitable peptides that will form complexes with class II major histocompatibility complex mols. for presentation to T cells. However, it is not known which proteases are required for antigen processing. To investigate this, the authors exposed a domain of the microbial tetanus toxin antigen (TTCF) to disrupted lysosomes that had been purified from a human B-cell line. Here the authors show that the dominant processing activity is not one of the known lysosomal cathepsins, which are generally believed to be the principal enzymes involved in antigen processing, but is instead an asparagine-specific cysteine endopeptidase. This enzyme seems similar or identical to a mammalian homolog of the legumain/hemoglobinase asparaginyl endopeptidases found originally in plants and parasites. The authors designed competitive peptide inhibitors of B-cell asparaginyl endopeptidase (AEP) that specifically block its proteolytic activity and inhibit processing of TTCF in vitro. In vivo, these inhibitors slow TTCF presentation to T cells, whereas preprocessing of TTCF with AEP accelerates its presentation, indicating that this enzyme performs a key step in TTCF processing. The authors also show that N-glycosylation of asparagine residues blocks AEP action in vitro. This indicates that N-glycosylation could eliminate sites of processing by AEP in mammalian proteins, allowing preferential processing of microbial antigens.

## IT 220701-07-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(as inhibitor of asparaginyl endopeptidase of human B-cell)

RN 220701-07-5 HCAPLUS

CN L- $\alpha$ -Glutamine, N2-[(9H-fluoren-9-ylmethoxy)carbonyl]-L-lysyl-L-asparaginyl-L-asparaginyl- (9CI) (CA INDEX NAME)

PAGE 2-A

OS.CITING REF COUNT: 179 THERE ARE 179 CAPLUS RECORDS THAT CITE THIS

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REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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COST IN U.S. DOLLARS

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 66.82 105.88

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=> s l1 and sql<=20 4969317 SQL<=20 L4 78 L1 AND SQL<=20

=> fil hcap

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FULL ESTIMATED COST
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111.87

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FILE COVERS 1907 - 16 Mar 2010 VOL 152 ISS 12
FILE LAST UPDATED: 15 Mar 2010 (20100315/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the first quarter of 2010.

CAS Information Use Policies apply and are available at:

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 15:28:28 ON 16 MAR 2010)

FILE 'REGISTRY' ENTERED AT 15:28:52 ON 16 MAR 2010 L1 12915 S KNNE/SQSP L2 15 S L1 AND SQL<=10

FILE 'HCAPLUS' ENTERED AT 15:29:41 ON 16 MAR 2010 L3

FILE 'REGISTRY' ENTERED AT 15:30:34 ON 16 MAR 2010 L4 78 S L1 AND SQL<=20

FILE 'HCAPLUS' ENTERED AT 15:30:54 ON 16 MAR 2010

=> 14 and (pd<19980101) 28 L4 19153499 PD<19980101

L5 3 L4 AND (PD<19980101)

(PD<19980101)

=> d 15 ibib abs hitstr 1-3

CORPORATE SOURCE:

SOURCE:

ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2010 ACS on STN T.5

1999:24490 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 130:195463

TITLE: An asparaginyl endopeptidase processes a microbial

antigen for class II MHC presentation

Manoury, Benedicte; Hewitt, Eric W.; Morrice, Nick; AUTHOR(S):

> Dando, Pam M.; Barrett, Alan J.; Watts, Colin Department of Biochemistry, Wellcome Sciences

Building, University of Dundee, Dundee, DD1 5EH, UK

Nature (London) (1998), 396(6712), 695-699

CODEN: NATUAS; ISSN: 0028-0836

PUBLISHER: Macmillan Magazines

DOCUMENT TYPE: Journal LANGUAGE: English

Foreign protein antigens must be broken down within endosomes or lysosomes to generate suitable peptides that will form complexes with class II major histocompatibility complex mols. for presentation to T cells. However, it is not known which proteases are required for antigen processing. To investigate this, the authors exposed a domain of the microbial tetanus toxin antigen (TTCF) to disrupted lysosomes that had been purified from a human B-cell line. Here the authors show that the dominant processing activity is not one of the known lysosomal cathepsins, which are generally believed to be the principal enzymes involved in antigen processing, but is instead an asparagine-specific cysteine endopeptidase. This enzyme seems similar or identical to a mammalian homolog of the legumain/hemoglobinase asparaginyl endopeptidases found originally in plants and parasites. The authors designed competitive peptide inhibitors of B-cell asparaginyl endopeptidase (AEP) that specifically block its proteolytic activity and inhibit processing of TTCF in vitro. In vivo, these inhibitors slow TTCF presentation to T cells, whereas preprocessing of TTCF with AEP accelerates its presentation, indicating that this enzyme performs a key step in TTCF processing. The authors also show that N-glycosylation of asparagine residues blocks AEP action in vitro. This indicates that N-glycosylation could eliminate sites of processing by AEP in mammalian proteins, allowing preferential processing of microbial antigens.

#### ΙT 220701-07-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(as inhibitor of asparaginyl endopeptidase of human B-cell)

RN 220701-07-5 HCAPLUS

CN  $L-\alpha$ -Glutamine, N2-[(9H-fluoren-9-ylmethoxy)carbonyl]-L-lysyl-Lasparaginyl-L-asparaginyl- (9CI) (CA INDEX NAME)

PAGE 2-A

OS.CITING REF COUNT: 179 THERE ARE 179 CAPLUS RECORDS THAT CITE THIS

RECORD (179 CITINGS)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1996:638572 HCAPLUS

DOCUMENT NUMBER: 125:301596

ORIGINAL REFERENCE NO.: 125:56463a,56466a

TITLE: Role of isoelectric point and hydrophobicity index of the sequence in synthesis of multiple antigen peptides

AUTHOR(S): Yadav, Satya P.

CORPORATE SOURCE: Biotechnology Support Facility, University Kansas,

Kansas City, KS, 66160, USA

SOURCE: Biochemical Archives (1996), 12(3), 187-194

CODEN: BIAREM; ISSN: 0749-5331

PUBLISHER: MBR Press, Inc.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Multiple Antigen Peptides (MAPs) in length from 7- to 18-mer were synthesized on a multiple peptide synthesizer and characterized by amino acid anal. The amino acid compns. of MAPs were in good agreement with their sequences. The yield of MAPs (nmoles) is significantly correlated to the pI of peptides. The correlation coefficient of nmoles yield of MAPs vs pI was 0.66, while the correlation coefficient between hydrophobicity index and the nmoles yield of MAP is - 0.60.

### IT 183024-18-2P

RL: SPN (Synthetic preparation); PREP (Preparation) (role of isoelec. point and hydrophobicity index in preparation of multiple antigen peptides)

RN 183024-18-2 HCAPLUS

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L5 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1995:189989 HCAPLUS

DOCUMENT NUMBER: 122:1061
ORIGINAL REFERENCE NO.: 122:255a,258a

TITLE: Synthetic fibronectin fragments as inhibitors of

retroviral infections

INVENTOR(S): Wahl, Sharon M.; Mccarthy, James B.; Furcht, Leo T. PATENT ASSIGNEE(S): Regents of the University of Minnesota, USA; United

States Dept. of Health and Human Services

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE       |
|------------|------|----------|-----------------|------------|
|            |      |          |                 |            |
| WO 9417097 | A1   | 19940804 | WO 1994-US729   | 19940119 < |

W: CA. JP

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
US 5545620 A 19960813 US 1994-291349 19940816 <-PRIORITY APPLN. INFO.: US 1993-6121 A 19930119

- AB Retroviral infections, e.g. by HIV, are inhibited using conjugates of defined fragments of fibronectins to carriers such as ovalbumin. These conjugates may be used in conjunction with anti-retroviral antibiotics. The ability of these conjugates to inhibit retrovirus replication in cell culture is demonstrated.
- IT 158923-03-6D, conjugates with ovalbumin
  RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
  (Uses)

(amino acid sequence; synthetic fibronectin fragments as inhibitors of retroviral infections)

RN 158923-03-6 HCAPLUS

CN L-Threonine, L-lysyl-L-asparaginyl-L-asparaginyl-L- $\alpha$ -glutamyl-L-lysyl-L-seryl-L- $\alpha$ -glutamyl-L-prolyl-L-leucyl-L-isoleucylglycyl-L-arginyl-L-lysyl-L-lysyl- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-B

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

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http://www.cas.org/support/stngen/stndoc/properties.html

=>

Uploading C:\Program Files\Stnexp\Queries\09646950\Claim 20.str

chain nodes:
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
chain bonds:
1-2 1-3 1-4 4-5 5-6 6-7 6-8 8-9 9-10 10-11 10-12 12-13 13-14 13-16 14-15 14-20 16-17 17-18 17-19 20-21 21-22 21-24 22-23 22-25
exact/norm bonds:
1-2 1-4 4-5 6-7 6-8 8-9 10-11 10-12 12-13 14-15 14-20 17-18 17-19 20-21 21-24 22-23 22-25
exact bonds:
1-3 5-6 9-10 13-14 13-16 16-17 21-22

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom

L6 STRUCTURE UPLOADED

=> dis

T.S. Heard Ph.D. Page 42

09/646,950

L6 HAS NO ANSWERS L6 STR

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

Structure attributes must be viewed using STN Express query preparation.

=> s 16 sss full FULL SEARCH INITIATED 15:40:35 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 12 TO ITERATE

100.0% PROCESSED 12 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

L7 0 SEA SSS FUL L6

=>

Uploading C:\Program Files\Stnexp\Queries\09646950\Claim 20a.str

chain nodes:
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 27
chain bonds:
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1-2 1-3 1-27 3-4 5-6 5-7 7-8 9-10 9-11 11-12 13-14 13-19 16-17 16-18 19-20 20-23 21-22 21-24 exact bonds:
4-5 8-9 12-13 12-15 15-16 20-21

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 27:Atom

09/646,950

L8 STRUCTURE UPLOADED

=> dis

L8 HAS NO ANSWERS

L8 STR

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

Structure attributes must be viewed using STN Express query preparation.

=> s 18 sss full

FULL SEARCH INITIATED 15:41:48 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 12 TO ITERATE

100.0% PROCESSED 12 ITERATIONS

SEARCH TIME: 00.00.01

L9 0 SEA SSS FUL L8

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0 ANSWERS

chain nodes :

chain bonds :

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13-14 13-19 15-16 16-17 16-18 19-20 20-21 20-23 21-22 21-24

exact/norm bonds :

 $1-2 \quad 1-3 \quad 1-27 \quad 3-4 \quad 5-6 \quad 5-7 \quad 7-8 \quad 9-10 \quad 9-11 \quad 11-12 \quad 13-14 \quad 13-19 \quad 16-17 \quad 16-18$ 

 $19 - 20 \quad 20 - 23 \quad 21 - 22 \quad 21 - 24$ 

exact bonds :

4-5 8-9 12-13 12-15 15-16 20-21

T.S. Heard Ph.D. Page 44

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 27:Atom

### L10 STRUCTURE UPLOADED

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FULL SEARCH INITIATED 15:43:01 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 12 TO ITERATE

100.0% PROCESSED 12 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

L11 0 SEA SSS FUL L10

=> fil req

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Page 45

=> s NC/sqep

18 NC/SQEP 3490 SQL=2 L12 18 NC/SQEP

(NC/SQEP AND SQL=2)

=> fil hcap

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FULL ESTIMATED COST 8.34 727.95

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION

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FILE COVERS 1907 - 16 Mar 2010 VOL 152 ISS 12
FILE LAST UPDATED: 15 Mar 2010 (20100315/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the first quarter of 2010.

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=> 112

L13 13 L12

=> d 113 ibib abs hitstr 1-13

SOURCE:

L13 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:1298870 HCAPLUS

DOCUMENT NUMBER: 147:362876

TITLE: Comparison of lipopeptide-based immunocontraceptive

vaccines containing different lipid groups

AUTHOR(S): Chua, Brendon Y.; Zeng, Weiguang; Lau, Yuk Fai;

Jackson, David C.

CORPORATE SOURCE: Cooperative Research Centre for Vaccine Technology,

Department of Microbiology and Immunology, The

University of Melbourne, Parkville, 3010, Australia

Vaccine (2007), 25(1), 92-101

CODEN: VACCDE; ISSN: 0264-410X

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

We have previously shown that incorporating the lipid moiety dipalmitoyl-S-glyceryl cysteine (Pam2Cys) into peptide structures effectively adjuvants otherwise weak immunogens. In this study lipopeptides based on LH releasing hormone (LHRH) as a B cell epitope, [B], were synthesized in tandem with a 17-residue T-helper epitope, [T], derived from the fusion protein of the morbillivirus canine distemper virus. In this way vaccine candidates with the structure [T]-[B] were produced. These peptides were then lipidated with different diacylated moieties. The acyl moieties used were: palmitic acid (C16) to give Pam2Cys, stearic acid (C18) to give Ste2Cys, lauric acid (C12) to give Lau2Cys and octanoic acid (C8) to give Oct2Cys. We compared the immunogenicities of these simple lipopeptides in BALB/c mice by measuring their ability to induce anti-LHRH antibodies and found that immunogenicity was dependent on the length of the alkane chains of the incorporated lipid moieties with the hierarchy C16 = C18 > C12 > C8. The antibody levels elicited by the lipopeptides also correlated with their ability to inhibit the reproductive capability of female mice in fertility trials. Furthermore, the C16 lipopeptide was the most effective in activating dendritic cells, measured by up regulation of surface MHC Class II mols., and also in activating NF- $\kappa$ B in a Toll-like receptor-2 (TLR2) -dependent manner.

### IT **949112-58-7P**

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(lipopeptide-based immunocontraceptive vaccines containing LHRH and T-helper peptides)

RN 949112-58-7 HCAPLUS

CN Glycinamide, L-lysyl-L-leucyl-L-isoleucyl-L-prolyl-L-asparaginyl-L-alanyl-L-seryl-L-leucyl-L-isoleucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-threonyl-L-lysyl-L-alanyl-L- $\alpha$ -glutamyl-L-leucyl-N6-[S-[2,3-bis[(1-oxohexadecyl)oxy]propyl]-L-cysteinyl-6-aminohexanoyl]-L-lysyl-5-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolyl- (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD

(4 CITINGS)

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L13 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN
                         2006:558785 HCAPLUS
ACCESSION NUMBER:
                          145:69756
DOCUMENT NUMBER:
                          Erythropoietin receptor-binding peptides, peptide
TITLE:
                          derivatives, and dimers for treatment of diseases
INVENTOR(S):
                          Holmes, Christopher P.; Yin, Qun; Zemede, Genet;
                          Bhandari, Ashok; Dong, Yaohua S.; Tumelty, David;
                          Lalonde, Guy; Palani, Balu; Schatz, Peter J.;
                          Wrighton, Nicholas C.; Dower, William J.; Frederick,
                          Brian T.; Chakrabarti, Anjan
PATENT ASSIGNEE(S):
                         Affymax, Inc., USA
                          PCT Int. Appl., 72 pp.
SOURCE:
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
LANGUAGE:
                          English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                        KIND DATE
                                            APPLICATION NO.
                                                                    DATE
                                _____
                                             _____
                         ____
                     A2
A3
                                            WO 2005-US41112
                                 20060615
                                                                    20051111
     WO 2006062685
                               20061019
     WO 2006062685
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
             MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
             SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
             VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
                                             US 2007-735106
                                 20080508
     US 20080108564
                         A1
                                                                     20070413
                                             US 2004-627432P P 20041111
PRIORITY APPLN. INFO.:
                                             US 2005-271524
                                                                 B1 20051110
                                             US 2006-497547
                                                                 A1 20060731
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
     The present invention relates to peptide compds. that are agonists of the
     erythropoietin receptor (EPO-R). The invention further relates to
     therapeutic methods using such peptide compds. to treat disorders associated
     with insufficient or defective red blood cell production Pharmaceutical
     compns., which comprise the peptide compds. of the invention, are also
     provided.
     890142-41-3
ΙT
     RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic
     use); BIOL (Biological study); USES (Uses)
        (erythropoietin receptor-binding peptides, pharmaceutical compns., and
        therapeutic use)
     890142-41-3 HCAPLUS
RN
     L-Lysinamide, 17N6,17'N6-[[[3-[[(1,1-dimethylethoxy)carbonyl]amino]-1-
     oxopropyl]imino]bis(1-oxo-2,1-ethanediyl)]bis[N-acetyl-L-\alpha-aspartyl-
     L-tyrosyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-phenylalanylglycyl-L-
     prolyl-L-leucyl-L-threonyl-L-tryptophyl-L-valyl-L-cysteinyl-L-arginyl-L-
     prolyl-L-seryl-, cyclic (4\rightarrow13), (4'\rightarrow13')-bis(disulfide) (9CI)
```

(CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L13 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN
```

ACCESSION NUMBER: 2006:542290 HCAPLUS

DOCUMENT NUMBER: 145:55979

TITLE: Peptides that bind to the erythropoietin receptor, pharmaceutical compositions, and therapeutic use

INVENTOR(S): Holmes, Christopher P.; Yin, Qun; Zemede, Genet; Bhandari, Ashok; Dong, Yaohua S.; Tumelty, David;

Lalonde, Guy; Palani, Balu; Schatz, Peter J.; Wrighton, Nicholas C.; Dower, William J.; Frederick,

Brian T.; Chakrabarti, Anjan

PATENT ASSIGNEE(S): Affymax, Inc., USA SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  |                |      | KIND     |     | DATE   |     | APPLICATION NO. |                 |     |           | DATE           |       |                    |     |      |              |     |
|-------------|----------------|------|----------|-----|--------|-----|-----------------|-----------------|-----|-----------|----------------|-------|--------------------|-----|------|--------------|-----|
|             | 2006           |      |          |     |        |     |                 | WO 2005-US41113 |     |           |                |       | 20051111           |     |      |              |     |
|             | W:             | ΑE,  | AG,      | AL, | AM,    | ΑT, | ΑU,             | ΑZ,             | BA, | BB        | , BG,          | BR,   | BW,                | BY, | BZ,  | CA,          | CH, |
|             |                | CN,  | CO,      | CR, | CU,    | CZ, | DE,             | DK,             | DM, | DZ        | , EC,          | EE,   | EG,                | ES, | FI,  | GB,          | GD, |
|             |                | GE,  | GH,      | GM, | HR,    | HU, | ID,             | IL,             | IN, | IS        | , JP,          | ΚE,   | KG,                | KM, | KN,  | KP,          | KR, |
|             |                | KΖ,  | LC,      | LK, | LR,    | LS, | LT,             | LU,             | LV, | LY        | , MA,          | MD,   | MG,                | MK, | MN,  | MW,          | MX, |
|             |                | MZ,  | NA,      | NG, | NI,    | NO, | NΖ,             | OM,             | PG, | PH        | , PL,          | PT,   | RO,                | RU, | SC,  | SD,          | SE, |
|             |                | SG,  | SK,      | SL, | SM,    | SY, | ТJ,             | TM,             | TN, | TR        | , TT,          | TZ,   | UA,                | UG, | US,  | UZ,          | VC, |
|             |                | VN,  | YU,      | ZA, | ZM,    | ZW  |                 |                 |     |           |                |       |                    |     |      |              |     |
|             | RW:            | ΑT,  | BE,      | BG, | CH,    | CY, | CZ,             | DE,             | DK, | EE        | , ES,          | FΙ,   | FR,                | GB, | GR,  | HU,          | IE, |
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|             |                | CF,  | CG,      | CI, | CM,    | GΑ, | GN,             | GQ,             | GW, | ML        | , MR,          | ΝE,   | SN,                | TD, | ΤG,  | BW,          | GH, |
|             |                |      |          |     |        |     |                 | SD,             | SL, | SZ        | , TZ,          | UG,   | ZM,                | ZW, | ΑM,  | ΑZ,          | BY, |
|             |                | - •  | KZ,      | ,   | - •    |     |                 |                 |     |           |                |       |                    |     |      |              |     |
|             | 2005           |      | 89       |     |        |     |                 |                 |     |           | 2005-          |       |                    |     |      |              |     |
|             | 2587.          |      |          |     |        |     | 2006            |                 |     |           | 2005-          |       |                    |     |      | 0051         |     |
| EP          | 1814           |      |          |     |        |     | 2007            |                 |     |           | 2005-          |       |                    |     |      | 0051         |     |
|             | R:             |      |          |     |        |     |                 |                 |     |           | , ES,          |       |                    |     |      |              |     |
|             |                | ,    | ,        | ,   | ,      | LU, | L∨,             | MC,             | ΝL, | РL        | , PT,          | RO,   | SE,                | SI, | SK,  | TR,          | AL, |
|             | 0000           | ,    | HR,      | MK, |        |     | 0000            | 0.610           |     | <b>TD</b> | 0007           | E 410 | 2.0                |     | 0    | 0051         | 111 |
| _           | 2008           |      |          |     | T      |     | 2008            |                 |     |           | 2007-          |       |                    |     | _    | 0051         |     |
|             | 2007<br>2007   |      |          |     |        |     | 2007<br>2007    |                 |     |           | 2007-<br>2007- |       |                    |     |      | 0070<br>0070 |     |
|             | 2007.          |      |          |     | A<br>A |     | 2007            |                 |     |           | 2007<br>2007-  |       |                    |     |      | 0070         |     |
|             | 2007           |      |          |     | A      |     | 2007            |                 |     |           | 2007-          |       |                    |     |      | 0070         |     |
|             | 1011           |      |          |     | A      |     | 2007            |                 |     |           | 2007-          |       |                    |     |      | 0070         |     |
|             | 2009           |      |          |     | A1     |     | 2009            |                 |     |           | 2003-          |       |                    |     |      | 0070         |     |
|             | 2009<br>( APP: |      | -        |     | AI     |     | 2009            | 0101            |     |           | 2003-          |       | -                  |     |      | 0030         | -   |
| ) 1 ( T T ] | L ALE.         | □1/4 | T141. () | • • |        |     |                 |                 |     |           | 2004-<br>2005- | -     |                    |     |      | 0051         |     |
|             |                |      |          |     |        |     |                 |                 |     | W .       | 2005-          | ODIT  | $\perp \perp \cup$ |     | vv _ | OOOT         |     |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention provides peptide compds. that are agonists of the erythropoietin receptor. The invention further provides therapeutic methods using such peptide compds. to treat disorders associated with insufficient or defective red blood cell production Pharmaceutical compns. which comprise the peptide compds. are also provided.

## IT 890142-41-3

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic

use); BIOL (Biological study); USES (Uses)
 (erythropoietin receptor-binding peptides, pharmaceutical compns., and
 therapeutic use)

RN 890142-41-3 HCAPLUS

CN L-Lysinamide, 17N6,17'N6-[[[3-[[(1,1-dimethylethoxy)carbonyl]amino]-1-oxopropyl]imino]bis(1-oxo-2,1-ethanediyl)]bis[N-acetyl-L- $\alpha$ -aspartyl-L-tyrosyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-phenylalanylglycyl-L-prolyl-L-leucyl-L-threonyl-L-tryptophyl-L-valyl-L-cysteinyl-L-arginyl-L-prolyl-L-seryl-, cyclic (4 $\rightarrow$ 13),(4' $\rightarrow$ 13')-bis(disulfide) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2000:288768 HCAPLUS

DOCUMENT NUMBER: 133:84482

TITLE: Metabolism of desmopressin

([8-D-arginine]deaminovasopressin) by the enzymes of

gastrointestinal tract

AUTHOR(S): Barth, Tomislav; Velek, Jiri; Barthova, Jana; Velkova,

Vlasta; Jezek, Jan; Hauzerova, Linda; Kasicka, Vaclav;

Ubik, Karel; Machova, Alena; Vilhardt, Hans

CORPORATE SOURCE: Institute of Organic Chemistry and Biochemistry,

Prague, Czech Rep.

SOURCE: Peptides 1998, Proceedings of the European Peptide

Symposium, 25th, Budapest, Aug. 30-Sept. 4, 1998 (1999)

), Meeting Date 1998, 862-863. Editor(s): Bajusz, Sandor; Hudecz, Ferenc.

Akademiai Kiado: Budapest, Hung.

CODEN: 68WKAY

DOCUMENT TYPE: Conference LANGUAGE: English

Desmopressin ([8-D-arginine]deaminovasopressin) is a synthetic peptide known for its prolonged antidiuretic effect, which has been attributed to its strong metabolic stability. The aim of this study was to characterize the interactions of desmopressin with a number of gastrointestinal enzymes and to synthesize and characterize expected desmopressin degradation peptides (which are then further stabilized against enzymic degradation). The results revealed that only the treatment of desmopressin by chymotrypsin resulted in the destruction of the peptide, while treatment with endoprolylpeptidase showed only a slight decrease in biol. potency, and treatment with pepsin revealed no decrease in potency. Five expected desmopressin degradation peptides were synthesized and then characterized (using the antidiuretic biol. assay), and the results showed that none of the compds. was biol. potent (up to doses of 5  $\mu$ moles per kg/bw). The results also revealed that in the in vitro assay (isolated rat uterus), no compound had any agonistic or antagonistic effect. In conclusion, the expected products of chymotryptic degradation of desmopressin were synthesized, subjected to physicochem. anal. and biol. evaluation and were shown to be devoid of the antidiuretic properties of desmopressin.

IT 281198-09-2P 281198-10-5P 281198-11-6P

RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)

(desmopressin metabolism by enzymes of gastrointestinal tract and antidiuretic properties of synthesized desmopressin degradation peptides)

RN 281198-09-2 HCAPLUS

CN Glycinamide, L-phenylalanyl-L-asparaginyl-3-[[3-[[(1S)-1-carboxy-2-(4-hydroxyphenyl)ethyl]amino]-3-oxopropyl]dithio]-L-alanyl-L-prolyl-D-arginyl-(9CI) (CA INDEX NAME)

PAGE 1-B

$$\begin{array}{c|c}
H & O \\
NH_2 \\
\hline
(CH_2)_3 & NH_2
\end{array}$$

RN 281198-10-5 HCAPLUS

CN Glycinamide, L-glutaminyl-L-asparaginyl-L-cysteinyl-L-prolyl-D-arginyl-,  $(3\rightarrow1')$ -disulfide with N-(3-mercapto-1-oxopropyl)-L-tyrosine (9CI) (CA INDEX NAME)

PAGE 1-B

RN 281198-11-6 HCAPLUS

CN Glycinamide,  $5-oxo-L-prolyl-L-asparaginyl-L-cysteinyl-L-prolyl-D-arginyl-, (3<math>\rightarrow$ 1')-disulfide with N-(3-mercapto-1-oxopropyl)-L-tyrosine (9CI) (CA INDEX NAME)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1999:416503 HCAPLUS

DOCUMENT NUMBER: 131:180065

TITLE: Synthetic insulin fragment with insulin-like

biological activity

AUTHOR(S): Prozorovskiy, V. N.; Maksimova, E. M.; Alekseeva, A.

E.; Grebenschikova, O. G.; Abakumova, O. Yu.; Kutsenko, N. G.; Ivanov, A. S.; Kniazhev, V. N.;

Archakov, A. I.

CORPORATE SOURCE: Institute of Biomedical Chemistry, Russian Academy of

Medical Science, Moscow, 119832, Russia

SOURCE: Biochemistry and Molecular Biology International

(1999), 47(6), 957-963

CODEN: BMBIES; ISSN: 1039-9712

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB An insulin fragment, representing the C-terminal functionally important site of its mol. and responsible for receptor binding, was synthesized. The fragment consists of two peptides: a dipeptide (A 20-21) and an octapeptide (B 19-26), linked with a disulfide bond (A20 - B19). The biol. activity of the newly synthesized fragment relative to insulin was assayed for the influence on glycogenesis and for the ability to stimulate glucose uptake. Comparative tests for the biol. activity of the synthesized fragment and of the intact hormone allowed us to conclude that the fragment has insulin-like properties.

#### IT 240488-51-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthetic insulin fragment with insulin-like biol. activity)

RN 240488-51-1 HCAPLUS

CN L-Tyrosine, L-cysteinylglycyl-L- $\alpha$ -glutamyl-L-arginylglycyl-L-phenylalanyl-L-phenylalanyl-, (1 $\rightarrow$ 2')-disulfide with

L-asparaginyl-L-cysteine (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

<sup>\_</sup>NH2

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD

(4 CITINGS)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS

T.S. Heard Ph.D. Page 57

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1994:580178 HCAPLUS

DOCUMENT NUMBER: 121:180178

ORIGINAL REFERENCE NO.: 121:32739a,32742a

syntheses

AUTHOR(S): Simmonds, Robin G.; Tupper, David E.; Harris, John R.

CORPORATE SOURCE: Lilly Res. Cent. Ltd., Eli Lilly and Co.,

Windlesham/Surrey, UK

SOURCE: International Journal of Peptide & Protein Research

(1994), 43(4), 363-6

CODEN: IJPPC3; ISSN: 0367-8377

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 121:180178

GΙ

$$\begin{array}{c} \text{H-Cys-Lys-NH2} \\ | \\ \text{Ac-Tyr-Asn-Cys(Acm)-Cys-Arg-NH2} \end{array} \quad \text{I}$$

AB The 3-nitro-2-pyridinesulfenyl (Npys) moiety is finding increasing utility as a protecting-activating group for cysteine, particularly in the synthesis of cyclic and unsym. disulfides using the Boc strategy. This chemical has been extended to peptides assembled by the Fmoc strategy. N-terminal Cys(Npys) is introduced via Boc-Cys(Npys)-OPfp. Non-N-terminal Cys(Npys) is incorporated by reacting a resin-bound, fully protected Cys(Acm) peptide with NpysCl. This approach has been applied to the synthesis of disulfide-bridged fragments I, II, III and IV of ω-conotoxins GVIA and MVIIA.

IT 157675-23-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, nitropyridinesulfenyl group as protecting/activating group for)

RN 157675-23-5 HCAPLUS

CN L-Argininamide, N-acetyl-L-tyrosyl-L-asparaginyl-S-[(acetylamino)methyl]-L-

cysteinyl-L-cysteinyl-,  $(4\rightarrow1')$ -disulfide with L-cysteinyl-L-lysinamide (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)

L13 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1993:162824 HCAPLUS

DOCUMENT NUMBER: 118:162824

ORIGINAL REFERENCE NO.: 118:27777a,27780a

TITLE: Synthesis and characterization of a disulfide bond

isomer of omega-conotoxin GVIA

AUTHOR(S): Pennington, M. W.; Festin, S. M.; Maccecchini, M. L.;

Kem, W. R.

CORPORATE SOURCE: Dep. Pept. Chem., BACHEM Biosci. Inc., Philadelphia,

PA, 19104, USA

SOURCE: Toxicon (1992), 30(7), 755-64

CODEN: TOXIA6; ISSN: 0041-0101

DOCUMENT TYPE: Journal LANGUAGE: English

AB Solid phase peptide synthesis and air oxidation of  $\omega$ -conotoxin GVIA yielded, in addition to the desired product, an isomeric peptide which could be completely separated from the native toxin by repeated HPLC. A chymotrypsin-trypsin digest of this peptide, when subjected to HPLC peptide mapping, provided peptides identical with synthetic disulfide containing peptides predicted for the  $\omega$ -conotoxin isomer containing C1-C2, C3-C5, C4-C6 cystinyl pairings. The shaking potency (ED50 = 1500 pmoles/kg, i.c.v.) of the isomeric peptide upon cannulated rats was 1.3% of the potency of native conotoxin (ED50 = 20 pmol/kg). Considering that all three disulfide pairings in the isomer are different from the native toxin, its retention of biol. activity is of interest.

IT 146663-72-1 146663-73-2 146663-74-3

RL: PROC (Process)

(isolation of, during oxidation and preparation of native toxin)

RN 146663-72-1 HCAPLUS

CN L-Tyrosine, L-seryl-L-cysteinyl-L-asparaginyl-trans-4-hydroxy-L-prolyl-,  $(2\rightarrow 2')$ -disulfide with L-asparaginyl-L-cysteinyl-L-cysteinyl-L- arginine  $(3'\rightarrow 1'')$ -disulfide with L-cysteinyl-L-tyrosinamide (9CI) (CA INDEX NAME)

PAGE 1-B

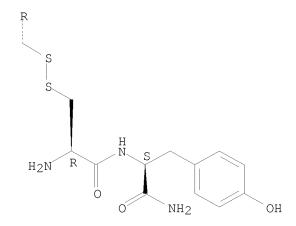
RN 146663-73-2 HCAPLUS CN  $\omega$ -Conotoxin G VIA (reduced), [seco-22/23]- 23-de-L-threonine-24-de-L-lysine-25-de-L-arginine-, cyclic (1+8),(15+19)-bis(disulfide), (16+26)-disulfide (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

PAGE 1-D

PAGE 2-A



RN 146663-74-3 HCAPLUS

CN L-Arginine, L-asparaginyl-L-cysteinyl-L-cysteinyl-,  $(2\rightarrow1')$ -disulfide with L-cysteinyl-L-tyrosinamide,  $(3\rightarrow1'')$ -disulfide with L-cysteinyl-L-lysine (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

ΝН

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

AUTHOR(S):

L13 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1992:592304 HCAPLUS

DOCUMENT NUMBER: 117:192304

ORIGINAL REFERENCE NO.: 117:33243a,33246a

TITLE: Potent V2/Vla vasopressin antagonists with C-terminal

ethylenediamine-linked retro-amino acids Manning, Maurice; Przybylski, Jozef; Grzonka, Zbigniew; Nawrocka, Eleonora; Lammek, Bernard;

Misicka, Aleksandra; Cheng, Ling Ling; Chan, W. Y.;

Wo, Nga Ching; Sawyer, Wilbur H.

CORPORATE SOURCE: Dep. Biochem. Mol. Biol., Med. Coll. Ohio, Toledo, OH,

43699-0008, USA

SOURCE: Journal of Medicinal Chemistry (1992), 35(21),

3895-904

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB The solid-phase synthesis and antagonis

The solid-phase synthesis and antagonistic potencies of 25  $\beta$ -mercapto- $\beta$ ,  $\beta$ -pentamethylenepropionic acid arginine-vasopressin (AVP) analogs I [X = D-Tyr(Et), D-Phe, D-Ile, D-Leu; X1 = Val, Ile; X2 = bond, Pro, Pro-Arg, Pro-Arg-Gly, Arg-Gly; R = H, H-Arg, H-D-Arg, H-Gly, H-Orn, H-D-Orn, H-D-Lys, H-Arg-Arg, H-Val, H-D-Val] are reported. All 25 peptides were examined for agonistic and antagonistic potencies in AVP antidiuretic (V2) and vasopressor (V1a) receptor assays. With the exception of peptides I (X = D-Ile, D-Leu, X1 = Val, X2 = bond, R= H-Arg), all I exhibit potent anti-V1a antagonism, with anti-V1a pA2 values in the range 7.64-8.33. Comparison of the anti-V2 potencies of peptides I [X = D-Tyr(Et), Tyr(Et), D-Phe, D-Ile, D-Leu, X1 = Val, X2 = bond, R = H, H-Arg] clearly shows the superiority of the D-Tyr(Et)2 substitution in leading to retention and enhancement of V2 antagonism in this series. With only one exception, the retro modified peptides I exhibit either full retention and in a number of cases a 1.5-7.5-fold enhancement of V2 antagonism compared to their resp. parent C-terminal ethylenediamine peptides I (R = H). Peptide I [X = D-Tyr(Et), X1 = Ile, X2 = Pro-Arg, R = H-Arg] exhibits a 2-fold enhancement of anti-V32 potency relative to its Val4 counterpart I (X, X2, R = same, X1 = Val). The retro modified peptides I [X = D-Tyr(Et), X1 = Ile, X2 = Pro-Arg-Gly, R = H-Val, H-D-Val], which possess extensions at the C-terminal, also exhibit good retention of V2 antagonism. Many of these retro substituted peptides are as potent as the most potent V2 antagonists reported to date. Some of these may be orally active. These findings point to the usefulness of ethylenediamine retro modifications in the design of AVP antagonists. Furthermore, they provide useful clues to the design of more potent and selective AVP antagonists and novel photoaffinity and radioiodinated ligands as probes of AVP receptors.

### IT 143346-52-5P

RN

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and antiantidiuretic and antivasopressor activities of) 143346-52-5 HCAPLUS

CN L-Cysteinamide, O-ethyl-N-[(1-mercaptocyclohexyl)acetyl]-D-tyrosyl-L-phenylalanyl-L-valyl-L-asparaginyl-N-[2-[(N2-L-arginyl-L-arginyl-L-arginyl)amino]ethyl]-, cyclic (1→5)-disulfide (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

# IT 143346-75-2P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation, deblocking, and disulfide cyclization of)

RN 143346-75-2 HCAPLUS

CN L-Cysteinamide, O-ethyl-N-[[1-[(phenylmethyl)thio]cyclohexyl]acetyl]-D-tyrosyl-L-phenylalanyl-L-valyl-L-asparaginyl-N-[2-[[N5-[imino[[(4-methylphenyl)sulfonyl]amino]methyl]-N2-[N5-[imino[[(4-methylphenyl)sulfonyl]amino]methyl]-N2-[(phenylmethoxy)carbonyl]-L-ornithyl]amino]ethyl]-S-(phenylmethyl)- (9CI) (CA INDEX NAME)

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OS.CITING REF COUNT: 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)

L13 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1991:450306 HCAPLUS

DOCUMENT NUMBER: 115:50306

ORIGINAL REFERENCE NO.: 115:8765a,8768a

TITLE: Preparation of a new vasopresin analog as a memory

enhancer

INVENTOR(S): Barth, Tomislav; Hrbas, Pavel; Kluh, Ivan; Skopkova,

Jana; Krojidlo, Milan

PATENT ASSIGNEE(S): Czech.

SOURCE: Czech., 6 pp.

CODEN: CZXXA9

DOCUMENT TYPE: Patent LANGUAGE: Czech FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
|                        |      |          |                 |          |
| CS 268463              | B1   | 19900314 | CS 1988-4752    | 19880701 |
| PRIORITY APPLN. INFO.: |      |          | CS 1988-4752    | 19880701 |
| GI                     |      |          |                 |          |

- AB A new vasopressin analog (I) is prepared by treating (8-D-arginine)deaminovasopressin (II) by chymotrypsin. A mixture of II and chymotrypsin in 0.02M Na phosphate buffer pH 7.2 was incubated 4 h at 37°, the reaction terminated by acidifying to pH 3, the product was freeze-dried, redissolved in 2 mL H2O, and the residual II removed from I by HPLC. In a passive avoidance test in mice, 5 g I/kg s.c. gave retention times after 1 and 2 wk of 165 and 133 s, resp. vs. 125 and 78 s, resp. for II.
- IT 134870-53-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as memory enhancer)

- RN 134870-53-4 HCAPLUS
- CN Vasopressin, [seco-2/3]- 1-(3-mercaptopropanoic acid)-8-D-arginine- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

L13 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1991:401690 HCAPLUS

DOCUMENT NUMBER: 115:1690
ORIGINAL REFERENCE NO.: 115:351a,354a

TITLE: Acyclic 'seco-analogs' of atrial natriuretic peptides

have biological activity in vitro: structure-activity

relationships

AUTHOR(S): Bovy, P. R.; O'Neal, J. M.; Olins, G. M.; Patton, D.

R.; McMahon, E. G.; Palomo, M. A.; Toren, P.;

Kolodziej, E. W.

CORPORATE SOURCE: G. D. Searle and Co., St. Louis, MO, 63198, USA

SOURCE: Pept.: Chem., Struct. Biol., Proc. Am. Pept. Symp.,

11th (1990), Meeting Date 1989, 254-7. Editor(s): Rivier, Jean E.; Marshall, Garland R. ESCOM Sci.

Pub.: Leiden, Neth.

CODEN: 56XTA7

DOCUMENT TYPE: Conference LANGUAGE: English

GΙ

Cys-Phe-OH

H-Arg-Phe-Ser-Asn-Cys-Gly-Leu-Gly-Ser-

Gln-Ala-Gly-Gly-Ile-Arg-Asp-OH

AB A symposium report on the relative vasorelaxant activity (rabbit aorta) and relative binding affinities (rabbit lung membranes) of atrial natriuretic peptide (ANP) acyclic seco analogs, e.g. I. The data confirm the important role of Leull7 and Arg109 and/or Ilel10 in recognition of the cyclase-coupled AnP receptor and indicate that the cyclic structure of ANP participates to stabilize the receptor-hormone complex.

Ι

IT **134302-70-8** 

RL: BIOL (Biological study)

(vasorelaxant and receptor-binding activities of)

RN 134302-70-8 HCAPLUS

CN L-Aspartic acid, L-arginyl-L-phenylalanyl-L-seryl-L-asparaginyl-L-cysteinylglycyl-L-leucylglycyl-L-seryl-L-glutaminyl-L-alanylglycylglycyl-L-isoleucyl-L-arginyl-, (5+1')-disulfide with L-cysteinyl-L-phenylalanine (9CI) (CA INDEX NAME)

PAGE 1-A

$$H_{2}N$$
 $H_{2}N$ 
 $H_{2}N$ 
 $H_{3}N$ 
 $H_{4}N$ 
 $H_{5}N$ 
 $H_{5}N$ 
 $H_{6}N$ 
 $H_{7}N$ 
 $H$ 

PAGE 1-B

PAGE 1-C

L13 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1986:15082 HCAPLUS

DOCUMENT NUMBER: 104:15082
ORIGINAL REFERENCE NO.: 104:2469a,2472a

TITLE: Pressinoic acid, its substituted amino acid

derivatives and homologs of the D configuration, N-and C-terminal substituted derivatives and their therapeutic, biological and immunological uses

INVENTOR(S): Chauveau, Jacques; Delaage, Michel

PATENT ASSIGNEE(S): Immunotech S. A., Fr. SOURCE: Fr. Demande, 8 pp. CODEN: FRXXBL

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
|            |      |          |                 |          |
| FR 2554347 | A1   | 19850510 | FR 1983-17768   | 19831107 |
| FR 2554347 | B1   | 19861003 |                 |          |

PRIORITY APPLN. INFO.: FR 1983-17768 19831107

AB The antidiuretic effect of pressinoic acid [35748-51-7] is examined Thus, pressinoic acid, when injected into a rabbit or rat at a dosage of 0.1 ng/kg, produced a slowing down of diuresis. The effect reached a maximum at 1.0 ng/kg and, at 50 ng/kg, pressinoic acid exhibited a slight pressor effect but no toxicity.

# IT 99540-99-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(antidiuretic activity of)

RN 99540-99-5 HCAPLUS

CN L-Cysteine, N-(3-carboxy-1-oxopropyl)-L-cysteinyl-L-tyrosyl-L-phenylalanyl-L-glutaminyl-L-asparaginyl-, cyclic  $(1\rightarrow6)$ -disulfide,  $(1\rightarrow1')$ -amide with glycyl-L-tyrosine (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c|c} \text{O} & \text{CO}_2\text{H} \\ || & | \\ -\text{CH}_2-\text{C}-\text{NH}-\text{CH}-\text{CH}_2 \end{array} \hspace{0.5cm} \text{OH}$$

3

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

# 09/646,950

L13 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN

1985:185471 HCAPLUS ACCESSION NUMBER:

102:185471 DOCUMENT NUMBER:

ORIGINAL REFERENCE NO.: 102:29117a,29120a

TITLE: Total synthesis of urogastrone (human epidermal growth

factor, h-EGF)

AUTHOR(S): Haqiwara, Daijiro; Neya, Masahiro; Miyazaki, Yoshio;

Hemmi, Keiji; Hashimoto, Masashi

CORPORATE SOURCE: Explor. Res. Lab., Fujisawa Pharm. Co., Ltd., Osaka,

532, Japan

SOURCE: Journal of the Chemical Society, Chemical

Communications (1984), (24), 1676-8

CODEN: JCCCAT; ISSN: 0022-4936

DOCUMENT TYPE: Journal LANGUAGE: English

Urogastrone was prepared from 10 peptides by the segment condensation method AΒ

in solution using the maximum protection strategy.

ΙT 96238-66-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN

96238-66-3 HCAPLUS L-Cysteine, glycyl-L-glutaminyl-L-arginyl-, (4+2')-disulfide with CN

L-asparaginyl-L-cysteine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L13 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1980:42370 HCAPLUS

DOCUMENT NUMBER: 92:42370 ORIGINAL REFERENCE NO.: 92:7085a

TITLE: The preparation and metabolic fate of tritiated

 $N\alpha$ -acetyl[2-0-methyltyrosine]oxytocin, an

inhibitor of the uterotonic action of oxytocin

Ι

AUTHOR(S): Bojanovska, Vera; Barth, Tomislav; Cerny, Bohuslav;

Hauzer, Karel; Jost, Karel

CORPORATE SOURCE: Inst. Org. Chem. Biochem., Czech. Acad. Sci., Prague,

166 10/6, Czech.

SOURCE: Collection of Czechoslovak Chemical Communications

(1979), 44(9), 2702-9

CODEN: CCCCAK; ISSN: 0366-547X

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

- AB The title compound (I) (sp. activity 3-7 Ci/mmol) was prepared by acylating [Tyr(Me)2]-oxytocin with (CH2TCO)2O. I was stable in human pregnancy serum. Chymotrypsin cleaved I at the Tyr(Me)-Ile and Leu-Gly peptide bonds. The incubation of I with subcellular fractions of rat uterine homogenates gave fragments which appeared to be identical with the products from the chymotryptic cleavage.
- IT 72289-64-6P 72302-84-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, by cleavage of oxytocin derivative with chymotrypsin)

RN 72289-64-6 HCAPLUS

CN L-Leucine, L-isoleucyl-L-glutaminyl-L-asparaginyl-L-cysteinyl-L-prolyl-, (4→1')-disulfide with N-acetyl-L-cysteinyl-O-methyl-L-tyrosine (9CI) (CA INDEX NAME)

(JCI) (CA INDEX NAME

PAGE 1-B

\_\_\_NH2

RN 72302-84-2 HCAPLUS

CN Glycinamide, L-isoleucyl-L-glutaminyl-L-asparaginyl-L-cysteinyl-L-prolyl-L-leucyl-,  $(4\rightarrow1')$ -disulfide with N-acetyl-L-cysteinyl-O-methyl-L-tyrosine (9CI) (CA INDEX NAME)

# PAGE 1-B

09/646,950 => FIL STNGUIDE SINCE FILE TOTAL ENTRY SESSION COST IN U.S. DOLLARS FULL ESTIMATED COST 86.03 813.98 SINCE FILE TOTAL SESSION DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) CA SUBSCRIBER PRICE -11.05 -22.95FILE 'STNGUIDE' ENTERED AT 15:47:11 ON 16 MAR 2010 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS) FILE CONTAINS CURRENT INFORMATION. LAST RELOADED: Mar 12, 2010 (20100312/UP). => d que stat L12 18 SEA FILE=REGISTRY ABB=ON PLU=ON NC/SQEP L13 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L12 => d his full (FILE 'HOME' ENTERED AT 15:28:28 ON 16 MAR 2010) FILE 'REGISTRY' ENTERED AT 15:28:52 ON 16 MAR 2010 12915 SEA ABB=ON PLU=ON KNNE/SQSP L1L2 15 SEA ABB=ON PLU=ON L1 AND SQL<=10 FILE 'HCAPLUS' ENTERED AT 15:29:41 ON 16 MAR 2010 11 SEA ABB=ON PLU=ON L2 L3 D L3 IBIB ABS HITSTR 1-11 FILE 'REGISTRY' ENTERED AT 15:30:34 ON 16 MAR 2010 L478 SEA ABB=ON PLU=ON L1 AND SQL<=20

FILE 'HCAPLUS' ENTERED AT 15:30:54 ON 16 MAR 2010 L5 3 SEA ABB=ON PLU=ON L4 AND (PD<19980101) D L5 IBIB ABS HITSTR 1-3

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FILE 'REGISTRY' ENTERED AT 15:40:10 ON 16 MAR 2010 L6 STRUCTURE UPLOADED DIS

L7 0 SEA SSS FUL L6
L8 STRUCTURE UPLOADED
DIS
L9 0 SEA SSS FUL L8

L10 STRUCTURE UPLOADED
L11 0 SEA SSS FUL L10

FILE 'REGISTRY' ENTERED AT 15:43:06 ON 16 MAR 2010 L12 18 SEA ABB=ON PLU=ON NC/SQEP

#### D L13 IBIB ABS HITSTR 1-13

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# FILE HCAPLUS

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LAST RELOADED: Mar 12, 2010 (20100312/UP).

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STRUCTURE FILE UPDATES: 15 MAR 2010 HIGHEST RN 1210111-73-1 DICTIONARY FILE UPDATES: 15 MAR 2010 HIGHEST RN 1210111-73-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 8, 2010.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> s LENC./SQSP

=> L14 AND SOL<=10

L14 7883 LENC./SQSP

852353 SQL<=10 L15 18 L14 AND SQL<=10

=> FIL HCAP

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FILE LAST UPDATED: 15 Mar 2010 (20100315/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the first quarter of 2010.

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=> L15 L16 5 L15

=> D L16 IBIB ABS HITSTR 1-5

L16 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:1101939 HCAPLUS

DOCUMENT NUMBER: 151:334264

TITLE: Nucleic acid and corresponding protein designated 161P2F10B useful in treatment and detection of cancer

INVENTOR(S): Challita-Eid, Pia M.; Raitano, Arthur B.; Faris, Mary;

Hubert, Rene S.; Morrison, Karen Jane Meyrick;

Jakobovits, Aya

PATENT ASSIGNEE(S): Agensys, Inc., USA

SOURCE: U.S., 234pp., Cont.-in-part of U.S. Ser. No. 121,024.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 34

PATENT INFORMATION:

| PATENT NO.                     | KIND DATE                             | APPLICATION NO.                                | DATE            |
|--------------------------------|---------------------------------------|--|-----------------|
| US 7585505                     | B2 20090908                           | US 2005-97864                                  | 20050401        |
| US 20050265924                 | A1 20051201                           |  |                 |
| EP 1854809                     | A1 20071114                           | EP 2007-101693                                 | 20010822        |
|                                |                                       | FI, FR, GB, GR, IE,                            | IT, LI, LU, MC, |
| NL, PT, SE,                    |                                       |  |                 |
| US 20030191073                 | A1 20031009                           | US 2001-5480                                   | 20011107        |
| US 20030165505                 | A1 20030904                           | US 2002-62109                                  | 20020131        |
| US 7067130                     | B2 20060627                           |  |                 |
| CA 2479049                     | A1 20031016                           | CA 2002-2479049                                | 20020401        |
| CA 2480811                     | A1 20031016                           | CA 2002-2480811                                | 20020401        |
| WO 2003085081                  | A2 20031016                           | WO 2002-US10132                                | 20020401        |
| WO 2003085081                  | A3 20050526                           |  |                 |
|                                |                                       | BA, BB, BG, BR, BY, B                          |                 |
| CO, CR, CU,                    |                                       |  |                 |
| GM, HR, HU,                    | , , , ,                               |  |                 |
| LS, LT, LU,                    |                                       | MK, MN, MW, MX, MZ, 1                          |                 |
| PL, PT, RO,                    |                                       |  | IN, TR, TT, TZ, |
| UA, UG, UZ,                    | , , , ,                               | ZW   |                 |
| RW: GH, GM, KE,                | , , , ,                               | SL, SZ, TZ, UG, ZM, Z                          |                 |
| KG, KZ, MD,                    |                                       | BE, CH, CY, DE, DK, F                          |                 |
| GR, IE, IT,                    |                                       | SE, TR, BF, BJ, CF, C                          | CG, CI, CM, GA, |
|                                | ML, MR, NE, SN,                       | TD, TG   | 00000401        |
| WO 2003085121                  | A2 20031016                           | WO 2002-US10220                                | 20020401        |
|                                |                                       | BA, BB, BG, BR, BY, F                          |                 |
| CO, CR, CU,                    |                                       | DZ, EC, EE, ES, FI, (                          |                 |
| GM, HR, HU,                    |                                       | JP, KE, KG, KP, KR, F                          |                 |
| LS, LT, LU,                    |                                       | MK, MN, MW, MX, MZ, I                          |                 |
| PL, PT, RO,                    |                                       | SI, SK, SL, TJ, TM, T                          | IN, TR, TT, TZ, |
| UA, UG, UZ,<br>RW: GH, GM, KE, | , , , ,                               |  | 7W 7W 77 DV     |
| KW: GH, GM, KE,<br>KG, KZ, MD, | , , , ,                               | SL, SZ, TZ, UG, ZM, Z                          |                 |
| _ ' ' '                        |                                       | BE, CH, CY, DE, DK, E<br>SE, TR, BF, BJ, CF, ( |                 |
|                                | · · · · · · · · · · · · · · · · · · · |  | JG, CI, CM, GA, |
| AU 2002258688                  | ML, MR, NE, SN, A1 20031020           | TD, TG<br>AU 2002-258688                       | 20020401        |
| AU 2002258688                  | B2 20080814                           | AU 2002-230000                                 | 20020401        |
| AU 2002258689                  | A1 20031020                           | AU 2002-258689                                 | 20020401        |
| AU 2002258689                  | B2 20070816                           | 110 2002 200009                                | 20020401        |
| EP 1553980                     | A2 20050720                           | EP 2002-728645                                 | 20020401        |
|                                |                                       | GB, GR, IT, LI, LU, 1                          |                 |
| 11. 111, 20, 011,              | 21, DR, 10, 1R,                       | 02, 011, 11, 11, 10, 1                         | , 51, 110, 11,  |

|        |                |                | FI,  |     |          |      |      |      |     |        |            |       |                      |      |     |    |     |             |            |
|--------|----------------|----------------|------|-----|----------|------|------|------|-----|--------|------------|-------|----------------------|------|-----|----|-----|-------------|------------|
| EI     |                | 8980           |      |     |          |      |      | 0928 |     |        |            |       |                      |      |     |    |     |             |            |
|        | K:             | AT,            |      |     |          |      |      |      |     |        |            |       | ш⊥,                  | LU,  | NL, | SE | , P | 1C,         | PT,        |
| וים:   | 170            | 1E,<br>0662    | 51,  | ш⊥, | LV,      | F Ι, | KU,  | MK,  | CY, | ED.    | և <b>,</b> | IK    | 1221                 |      |     |    | 200 | 120         | 400        |
| Li     |                | AT,            |      |     |          |      |      |      |     |        |            |       |                      |      |     |    |     |             |            |
|        | K:             |                | PT,  |     |          | DE,  | DK,  | ES,  | ГΙ, | rr     | Χ,         | GB,   | GK,                  | IE,  | ΤΙ, | ΤТ | , 1 | <b>-∪</b> , | MC,        |
| IJ     | 5 200          | 70031          |      |     |          |      | 2007 | 0208 |     | US     | 2.0        | 002-  | 1210                 | 2.4  |     |    | 200 | 020         | 410        |
|        |                | 60002          |      |     |          |      |      | 0105 |     | US     | 20         | 04-   | 8596                 | 43   |     |    |     |             | 602        |
| US     | 3 727          | 9556           |      |     | В2       |      |      | 1009 |     |        |            |       |                      |      |     |    |     |             |            |
| US     | 3 200          | 70004          | 913  |     | A1       |      | 2007 | 0104 |     | US     | 20         | 004-  | 8607                 | 69   |     |    | 200 | 040         | 602        |
| US     | 3740           | 5290           |      |     | В2       |      | 2008 | 0729 |     |        |            |       |                      |      |     |    |     |             |            |
|        |                | 50227          |      |     |          |      |      | 1013 |     |        |            |       | 9901                 |      |     |    |     |             | 115        |
|        |                | 60018          |      |     | A1       |      |      | 0126 |     | US     | 20         | 004-  | 9897                 | 67   |     |    |     |             | 115        |
|        |                | 50214          |      |     | A1       |      |      | 0929 |     | US     | 20         | 05-   | 7334                 | 9    |     |    |     |             | 303        |
|        |                | 70048          | 283  |     | A1       |      |      | 0301 |     | US     | 20         | 05-   | 1542                 | 98   |     |    | 200 | )50         | 615        |
|        | 764            |                | 0.00 |     | B2       |      |      | 0105 |     |        | 0.0        | ) A F | 1                    | 2.1  |     |    | 201 | <b>λ</b> ΓΛ | C17        |
|        |                | 70041<br>70048 |      |     | A1<br>A1 |      |      | 0222 |     |        |            |       | 1562.<br>1559        |      |     |    |     |             | 617<br>617 |
|        | 5 200<br>5 762 |                | 299  |     | B2       |      |      | 1208 |     | 05     | 2(         | 105-  | 1339                 | 06   |     |    | 200 | )501        | 01/        |
|        |                | 70054          | 28/1 |     | A1       |      |      | 0308 |     | IIC    | 20         | 106-  | 3682                 | Ω /1 |     |    | 200 | າຣກ         | 302        |
|        | 759            |                | 201  |     | B2       |      |      | 0922 |     | 0.5    | ۷.         | ,00   | 3002                 | 0 1  |     |    | 200 | ,00.        | 302        |
|        |                | 80280          | 822  |     | A1       |      |      | 1113 |     | US     | 20         | 006-  | 4420                 | 31   |     |    | 200 | 060         | 526        |
|        | 764            |                |      |     | В2       |      |      | 0105 |     |        |            |       |                      |      |     |    |     |             |            |
| US     | 3 200          | 70212          | 299  |     | A1       |      |      | 0913 |     | US     | 20         | 07-   | 6558.                | 22   |     |    | 200 | 370         | 119        |
|        | 766            |                |      |     | В2       |      | 2010 | 0223 |     |        |            |       |                      |      |     |    |     |             |            |
| US     | 3 200          | 80233          | 598  |     | A1       |      | 2008 | 0925 |     |        |            |       | 7040                 |      |     |    | 200 | 070         | 206        |
|        |                | 72013          |      |     | A1       |      |      | 0419 |     |        |            |       | 2013                 |      |     |    |     |             | 326        |
|        |                | 72544          | 90   |     | A        |      |      | 1004 |     | JΡ     | 20         | 07-   | 1683                 | 00   |     |    | 200 | )70         | 626        |
|        |                | 7877           |      |     | В2       |      |      | 1105 |     |        |            |       |                      |      |     |    |     |             |            |
|        |                | 90264          | 381  |     | A1       |      |      | 1022 |     | US     | 20         | 007-  | 8339                 | 18   |     |    | 200 | )70         | 803        |
|        | 766            | 7015           | 0.0  |     | B2<br>A1 |      |      | 0223 |     | 7) [ ] | 20         | 0.7   | 2372                 | 0.2  |     |    | 200 | 771         | 130        |
|        |                | 81880          |      |     | A        |      |      | 0821 |     |        |            |       | 4336                 |      |     |    |     |             | 225        |
|        | 429            |                | 10   |     | B2       |      |      | 0722 |     | OL     | 20         | 000   | 4330                 | O    |     |    | 200 | , , , , ,   | 44J        |
|        |                | 82462          | 1.5  |     | A1       |      |      | 1204 |     | ΑIJ    | 2.0        | 008-  | 2462                 | 15   |     |    | 200 | 081         | 114        |
|        |                | 90148          |      |     |          |      |      | 0611 |     | US     | 20         | 009-  | 3571                 | 54   |     |    |     |             | 121        |
| PRIORI |                |                |      |     |          |      |      |      |     | US     | 20         | 01-   | 2827.                | 39P  |     | Р  | 200 | 010         | 410        |
|        |                |                |      |     |          |      |      |      |     | US     | 20         | 01-   | 2831<br>2866<br>5480 | 12P  |     | Р  | 200 | )10         | 410        |
|        |                |                |      |     |          |      |      |      |     | US     | 20         | 01-   | 2866                 | 30P  |     | P  | 200 | )10         | 425        |
|        |                |                |      |     |          |      |      |      |     | US     | 20         | 01-   | 5480                 |      |     | В1 | 200 | )11         | 107        |
|        |                |                |      |     |          |      |      |      |     |        |            |       | 6210                 |      |     |    |     |             |            |
|        |                |                |      |     |          |      |      |      |     |        |            |       | 1210                 |      |     |    |     | 020         |            |
|        |                |                |      |     |          |      |      |      |     |        |            |       | 2270                 |      |     |    |     | 000         |            |
|        |                |                |      |     |          |      |      |      |     |        |            |       | 3003                 |      |     |    |     |             | 622        |
|        |                |                |      |     |          |      |      |      |     |        |            |       | 9643<br>9354.        |      |     |    |     | 010         | 822<br>822 |
|        |                |                |      |     |          |      |      |      |     |        |            |       | 2586                 |      |     |    |     | 020         |            |
|        |                |                |      |     |          |      |      |      |     |        |            |       | US10                 |      |     |    |     | 020         |            |
|        |                |                |      |     |          |      |      |      |     |        |            |       | US10.                |      |     |    |     | 020         |            |
|        |                |                |      |     |          |      |      |      |     |        |            |       | 3051                 |      |     |    |     | 020         |            |
|        |                |                |      |     |          |      |      |      |     |        |            |       | 7620.                |      |     |    |     | 020         |            |
|        |                |                |      |     |          |      |      |      |     | US     | 20         | 002-  | 1208                 | 35   | 1   | А3 | 200 | 020         | 409        |
|        |                |                |      |     |          |      |      |      |     |        |            |       | 1208                 |      |     |    |     | 020         |            |
|        |                |                |      |     |          |      |      |      |     |        |            |       | 1209                 |      |     |    |     | 020         |            |
|        |                |                |      |     |          |      |      |      |     |        |            |       | 1209                 |      |     |    |     |             | 409        |
|        |                |                |      |     |          |      |      |      |     | AU     | 20         | 002-  | 3616                 | 10   |     | А3 | 200 | )21         | 107        |
|        |                |                |      |     |          |      |      |      |     |        |            |       |                      |      |     |    |     |             |            |

| JΡ | 2003-542587 | А3 | 20021107 |
|----|-------------|----|----------|
| US | 2002-291241 | A3 | 20021107 |
| US | 2005-73349  | В1 | 20050303 |
| US | 2006-368284 | A1 | 20060302 |
| JΡ | 2007-168300 | A3 | 20070626 |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A gene (designated 161P2F10B) and its encoded protein are described wherein 161P2F10B exhibits tissue specific expression in normal adult tissue, it is aberrantly expressed in the cancers of the breast, colon, kidney, lung, ovary, pancreas, and prostate. Consequently, 161P2F10B provides a diagnostic, prognostic, prophylactic, and/or therapeutic target for cancer. The 161P2F10B gene or fragment thereof, or its encoded protein or a fragment thereof, can be used to elicit a humoral or cellular immune response.

# IT 525539-81-5 525540-99-2 525542-96-5 528836-14-8

RL: PRP (Properties)

(unclaimed sequence; nucleic acid and corresponding protein designated 161P2F10B useful in treatment and detection of cancer)

RN 525539-81-5 HCAPLUS

CN L-Valine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 525540-99-2 HCAPLUS

CN L-Alanine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl-L-valyl- (CA INDEX NAME)

PAGE 2-A

RN 525542-96-5 HCAPLUS

CN L-Valine, L-arginylglycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl- (CA INDEX NAME)

PAGE 1-B

RN 528836-14-8 HCAPLUS

CN L-Arginine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-(CA INDEX NAME)

$$H_2N$$
 $H_2N$ 
 $H_3$ 
 $H_2N$ 
 $H_3$ 
 $H_4$ 
 $H_5$ 
 $H_4$ 
 $H_5$ 
 $H_5$ 
 $H_6$ 
 $H_6$ 
 $H_8$ 
 $H$ 

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(15 CITINGS)

REFERENCE COUNT: 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

INVENTOR(S):

L16 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:853968 HCAPLUS

DOCUMENT NUMBER: 149:167940

TITLE: Peptide modulators of angiogenesis and their use for

treatment of cancer Popel, Aleksander S.

PATENT ASSIGNEE(S): The Johns Hopkins University, USA

SOURCE: PCT Int. Appl., 169pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

|       | PATENT NO.             |      |     |     |     |                        | KIND DATE |      |                            |     | APPL | ICAT |      | DATE |     |              |          |     |  |  |
|-------|------------------------|------|-----|-----|-----|------------------------|-----------|------|----------------------------|-----|------|------|------|------|-----|--------------|----------|-----|--|--|
|       |                        | 2008 |     |     |     | A2 20080°<br>A3 20081° |           |      |                            |     |      |      |      |      |     |              | 20080103 |     |  |  |
|       |                        | W:   | ΑE, | AG, | AL, | AM,                    | ΑO,       | AT,  | AU,                        | AZ, | BA,  | BB,  | BG,  | BH,  | BR, | BW,          | BY,      | BZ, |  |  |
|       |                        |      | CA, | CH, | CN, | CO,                    | CR,       | CU,  | CZ,                        | DE, | DK,  | DM,  | DO,  | DZ,  | EC, | EE,          | EG,      | ES, |  |  |
|       |                        |      | FΙ, | GB, | GD, | GE,                    | GH,       | GM,  | GT,                        | HN, | HR,  | HU,  | ID,  | IL,  | IN, | IS,          | JP,      | KE, |  |  |
|       |                        |      | KG, | KM, | KN, | KP,                    | KR,       | KΖ,  | LA,                        | LC, | LK,  | LR,  | LS,  | LT,  | LU, | LY,          | MA,      | MD, |  |  |
|       |                        |      | ME, | MG, | MK, | MN,                    | MW,       | MX,  | MY,                        | MΖ, | NA,  | NG,  | NI,  | NO,  | NZ, | OM,          | PG,      | PH, |  |  |
|       |                        |      | PL, | PT, | RO, | RS,                    | RU,       | SC,  | SD,                        | SE, | SG,  | SK,  | SL,  | SM,  | SV, | SY,          | ΤJ,      | TM, |  |  |
|       |                        |      | TN, | TR, | TT, | TZ,                    | UA,       | UG,  | US,                        | UZ, | VC,  | VN,  | ZA,  | ZM,  | ZW  |              |          |     |  |  |
|       |                        | RW:  | ΑT, | BE, | BG, | CH,                    | CY,       | CZ,  | DE,                        | DK, | EE,  | ES,  | FΙ,  | FR,  | GB, | GR,          | HR,      | HU, |  |  |
|       |                        |      | ΙE, | IS, | ΙΤ, | LT,                    | LU,       | LV,  | MC,                        | MT, | NL,  | NO,  | PL,  | PT,  | RO, | SE,          | SI,      | SK, |  |  |
|       |                        |      | TR, | BF, | ВJ, | CF,                    | CG,       | CI,  | CM,                        | GΑ, | GN,  | GQ,  | GW,  | ML,  | MR, | NE,          | SN,      | TD, |  |  |
|       |                        |      | TG, | BW, | GH, | GM,                    | ΚE,       | LS,  | MW,                        | MZ, | NA,  | SD,  | SL,  | SZ,  | TZ, | UG,          | ZM,      | ZW, |  |  |
|       |                        |      | AM, | ΑZ, | BY, | KG,                    | KΖ,       | MD,  | RU,                        | ТJ, | TM,  | ΑP,  | EA,  | EP,  | ΟA  |              |          |     |  |  |
| PRIO: | PRIORITY APPLN. INFO.: |      |     |     |     |                        |           |      |                            |     | US 2 | 007- | 8785 | 79P  | ]   | P 20070103   |          |     |  |  |
| AB    | AB Peptides containing |      |     |     |     |                        | SP,       | CXC, | collagen, somatotropin, or |     |      |      |      |      |     | serpin motif |          |     |  |  |

AB Peptides containing a TSP, CXC, collagen, somatotropin, or serpin motif as well as addnl. peptides derived from placental lactogen, caspase 10, etc., are disclosed. These peptides may be used to inhibit blood vessel formation, e.g., in treatment of tumors. Thus, a systematic computational methodol. based on bioinformatics was used to identify novel peptide modulators of angiogenesis that were characterized in vitro and/or in vivo.

#### IT 1039155-66-2

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(peptide modulators of angiogenesis and their use for treatment of cancer)  $\ensuremath{\mathsf{Cancer}}$ 

RN 1039155-66-2 HCAPLUS

CN L-Leucine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-(CA INDEX NAME)

L16 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:411968 HCAPLUS

DOCUMENT NUMBER: 148:447879

TITLE: Polynucleotide vaccines encoding CTL and/or HTL epitopes for inducing cellular immune responses

against influenza virus infection

INVENTOR(S): Alexander, Jeffery L.; Southwood, Scott F.; Bilsel,

Pamuk A.; Newman, Mark J.

PATENT ASSIGNEE(S): Pharmexa Inc., USA SOURCE: PCT Int. Appl., 313 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA:     | TENT       | NO.  |      |     | KIND DATE                  |     |      |      |      | APPL | ICAT |       | DATE     |     |     |      |     |
|---------|------------|------|------|-----|----------------------------|-----|------|------|------|------|------|-------|----------|-----|-----|------|-----|
|         |            |      |      |     | A2 20080403<br>A3 20081231 |     |      | 1    | WO 2 | 007- | US16 |       | 20070723 |     |     |      |     |
|         | W:         | ΑE,  | AG,  | AL, | AM,                        | ΑT, | ΑU,  | AZ,  | BA,  | BB,  | BG,  | BH,   | BR,      | BW, | BY, | BZ,  | CA, |
|         |            | CH,  | CN,  | CO, | CR,                        | CU, | CZ,  | DE,  | DK,  | DM,  | DO,  | DZ,   | EC,      | EE, | EG, | ES,  | FΙ, |
|         |            | GB,  | GD,  | GE, | GH,                        | GM, | GT,  | HN,  | HR,  | HU,  | ID,  | IL,   | IN,      | IS, | JP, | ΚE,  | KG, |
|         |            | KM,  | KN,  | KP, | KR,                        | KΖ, | LA,  | LC,  | LK,  | LR,  | LS,  | LT,   | LU,      | LY, | MA, | MD,  | ME, |
|         |            | MG,  | MK,  | MN, | MW,                        | MX, | MY,  | MZ,  | NA,  | NG,  | NΙ,  | NO,   | NZ,      | OM, | PG, | PH,  | PL, |
|         |            | PT,  | RO,  | RS, | RU,                        | SC, | SD,  | SE,  | SG,  | SK,  | SL,  | SM,   | SV,      | SY, | ТJ, | TM,  | TN, |
|         |            | TR,  | TT,  | TZ, | UA,                        | UG, | US,  | UZ,  | VC,  | VN,  | ZA,  | ZM,   | ZW       |     |     |      |     |
|         | RW:        | ΑT,  | BE,  | BG, | CH,                        | CY, | CZ,  | DE,  | DK,  | EE,  | ES,  | FI,   | FR,      | GB, | GR, | HU,  | ΙE, |
|         |            | IS,  | ΙΤ,  | LT, | LU,                        | LV, | MC,  | MT,  | NL,  | PL,  | PT,  | RO,   | SE,      | SI, | SK, | TR,  | BF, |
|         |            | ВJ,  | CF,  | CG, | CI,                        | CM, | GΑ,  | GN,  | GQ,  | GW,  | ML,  | MR,   | NE,      | SN, | TD, | ΤG,  | BW, |
|         |            | GH,  | GM,  | KΕ, | LS,                        | MW, | MZ,  | NA,  | SD,  | SL,  | SZ,  | TZ,   | UG,      | ZM, | ZW, | AM,  | AZ, |
|         |            | BY,  | KG,  | KΖ, | MD,                        | RU, | ТJ,  | TM,  | AP,  | EA,  | EP,  | OA    |          |     |     |      |     |
| AU      | 2007       | 3006 | 63   |     | A1                         |     | 2008 | 0403 |      | AU 2 | 007- | 3006  | 63       |     | 2   | 0070 | 723 |
| CA      | 2658       | 559  |      |     | A1                         |     | 2008 | 0403 | (    | CA 2 | 007- | 2658  | 559      |     | 2   | 0070 | 723 |
| EP      | EP 2069376 |      |      |     | A2                         |     | 2009 | 0617 |      | EP 2 | 007- | 8613. | 32       |     | 2   | 0070 | 723 |
|         | R:         | ΑT,  | BE,  | BG, | CH,                        | CY, | CZ,  | DE,  | DK,  | EE,  | ES,  | FΙ,   | FR,      | GB, | GR, | HU,  | ΙE, |
|         |            | IS,  | ΙΤ,  | LI, | LT,                        | LU, | LV,  | MC,  | MT,  | NL,  | PL,  | PT,   | RO,      | SE, | SI, | SK,  | TR, |
|         |            | AL,  | BA,  | HR, | MK,                        | RS  |      |      |      |      |      |       |          |     |     |      |     |
| PRIORIT | Y APP      | LN.  | INFO | .:  |                            |     |      |      | 1    | US 2 | 006- | 8321  | 12P      |     | P 2 | 0060 | 721 |

US 2006-832112P P 20060721 WO 2007-US16529 W 20070723

#### OTHER SOURCE(S): MARPAT 148:447879

This invention uses our knowledge of the mechanisms by which antigen is recognized by T cells to identify and prepare influenza virus epitopes, and to develop epitope-based vaccines directed towards influenza virus. These epitopes are cytotoxic T lymphocyte epitopes, helper T lymphocyte epitopes and B cell epitopes derived from influenza virus hemagglutinin, neuraminidase, nucleoprotein, RNA polymerase subunit PA, RNA polymerase basic protein 1, RNA polymerase basic protein 2, nonstructural gene 1, nonstructural gene 2, matrix protein 1 or matrix protein 2. More specifically, this application communicates our discovery of pharmaceutical compns. and methods of use in the prevention and treatment of influenza virus infection.

# IT 1017870-02-8

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (polynucleotide vaccines encoding CTL and/or HTL epitopes for inducing cellular immune responses against influenza virus infection)

RN 1017870-02-8 HCAPLUS

CN L-Glutamine, L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L- $\alpha$ -glutamyl-L-threonyl-L-lysyl-L-cysteinyl- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 2-A

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L16 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:377029 HCAPLUS

DOCUMENT NUMBER: 138:400512

TITLE: Nucleic acid and corresponding protein designated 161P2F10B useful in treatment and detection of cancer

INVENTOR(S): Jakobovits, Aya; Raitano, Arthur B.; Faris, Mary; Hubert, Rene S.; Ge, Wangmao; Morrison, Karen Jane

Meyrick; Morrison, Robert Kendall; Challita-Eid, Pia

Μ.

PATENT ASSIGNEE(S): Agensys, Inc., USA SOURCE: PCT Int. Appl., 269 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 34

PATENT INFORMATION:

| PATE | ENT I      | NO.                  |     |     | KIND DATE      |     |                      |      |                 | APPL | ICAT |      | DATE     |     |     |      |     |  |
|------|------------|----------------------|-----|-----|----------------|-----|----------------------|------|-----------------|------|------|------|----------|-----|-----|------|-----|--|
| WO 2 | 2003       | 0403<br>0403<br>0403 | 40  |     | A2<br>A9<br>A3 |     | 2003<br>2003<br>2005 | 0807 |                 | WO 2 | 002- |      | 20021107 |     |     |      |     |  |
|      | W:         | AE,                  | AG, | AL, | AM,            | AT, | AU,                  | AZ,  | BA,             | BB,  | BG,  | BR,  | BY,      | BZ, | CA, | CH,  | CN. |  |
|      |            | ,                    | CR, | ,   | CZ,            |     | DK,                  |      |                 |      |      |      |          |     |     |      | GH. |  |
|      |            | GM,                  |     | HU, | ID,            | IL, |                      |      |                 | KE,  |      |      | •        |     |     |      | LR, |  |
|      |            | LS,                  |     | LU, | LV,            | MA, | •                    | MG,  |                 |      |      |      |          |     |     |      |     |  |
|      |            | PL,                  | PT, | RO, | RU,            | SC, |                      |      |                 | SI,  |      |      | •        |     |     | •    | •   |  |
|      |            | TZ,                  | •   | UG, | US,            |     | •                    | VN,  | •               | •    | ZM,  | ZW   | ,        | ,   | ,   | ,    |     |  |
|      | RW:        | GH,                  | ,   | KE, | LS,            | MW, | ,                    |      | ,               | SZ,  | TZ,  | UG,  | ZM,      | ZW, | AM, | AZ,  | BY, |  |
|      |            | KG,                  | KZ, | MD, | RU,            | ΤJ, | TM,                  | AT,  | •               | •    |      | CY,  | CZ,      | DE, | DK, | EE,  | ES, |  |
|      |            | FΙ,                  | FR, | GB, | GR,            | IE, | IT,                  | LU,  | MC,             | NL,  | PT,  | SE,  | SK,      | TR, | BF, | ВJ,  | CF, |  |
|      |            | CG,                  | CI, | CM, | GΑ,            | GN, | GQ,                  |      |                 |      |      |      |          |     |     |      |     |  |
| US 2 | 2003       | 0191                 | 073 |     | A1             |     | 2003                 |      |                 | US 2 |      |      | 20011107 |     |     |      |     |  |
| US 2 | 2003       | 0165                 | 505 |     | A1             |     | 2003                 | 0904 |                 | US 2 | 002- |      | 20020131 |     |     |      |     |  |
| US 7 | 7067       | 130                  |     |     | В2             |     | 2006                 |      |                 |      |      |      |          |     |     |      |     |  |
| CA 2 | CA 2479049 |                      |     |     | A1             |     | 2003                 | 1016 |                 | CA 2 | 002- | 2479 | 049      |     | 2   | 0020 | 401 |  |
| CA 2 | CA 2480811 |                      |     |     | A1             |     | 2003                 | 1016 |                 | CA 2 | 002- | 2480 | 811      |     | 2   | 0020 | 401 |  |
| WO 2 | 2003       | 0850                 | 81  |     | A2             |     | 2003                 | 1016 | WO 2002-US10132 |      |      |      |          |     | 2   | 0020 | 401 |  |
| WO 2 | 2003       | 0850                 | 81  |     | АЗ             |     | 2005                 | 0526 |                 |      |      |      |          |     |     |      |     |  |
|      | W:         | ΑE,                  | AG, | AL, | AM,            | ΑT, | ΑU,                  | AZ,  | BA,             | BB,  | BG,  | BR,  | BY,      | BZ, | CA, | CH,  | CN, |  |
|      |            | CO,                  | CR, | CU, | CZ,            | DE, | DK,                  | DM,  | DZ,             | EC,  | EE,  | ES,  | FΙ,      | GB, | GD, | GE,  | GH, |  |
|      |            | GM,                  | HR, | HU, | ID,            | IL, | IN,                  | IS,  | JP,             | KE,  | KG,  | KP,  | KR,      | KΖ, | LC, | LK,  | LR, |  |
|      |            | LS,                  | LT, | LU, | LV,            | MA, | MD,                  | MG,  | MK,             | MN,  | MW,  | MX,  | MΖ,      | NO, | NΖ, | OM,  | PH, |  |
|      |            | PL,                  | PT, | RO, | RU,            | SD, | SE,                  | SG,  | SI,             | SK,  | SL,  | ΤJ,  | TM,      | TN, | TR, | TT,  | TZ, |  |
|      |            | UA,                  | UG, | UΖ, | VN,            |     |                      | •    | ZW              |      |      |      |          |     |     |      |     |  |
|      | RW:        | GH,                  | GM, | KΕ, | LS,            | MW, | ${ m MZ}$ ,          | •    |                 | SZ,  |      |      |          |     | •   |      | •   |  |
|      |            | KG,                  | KΖ, | MD, | ,              | ,   |                      | ΑT,  |                 |      |      |      |          |     |     |      |     |  |
|      |            | GR,                  | ΙE, | ΙΤ, |                |     | ΝL,                  |      |                 |      | BF,  | ВJ,  | CF,      | CG, | CI, | CM,  | GΑ, |  |
|      |            | GN,                  | GQ, | GW, | ML,            |     | NE,                  |      | TD,             |      |      |      |          |     |     |      |     |  |
| WO 2 |            | 0851                 |     |     | A2             |     | 2003                 |      |                 | WO 2 |      |      | _        |     | _   | 0020 |     |  |
|      | W:         |                      |     |     |                |     | AU,                  |      |                 |      |      |      |          |     |     |      |     |  |
|      |            | ,                    | •   | CU, | •              |     | DK,                  | •    |                 | •    | ,    | •    |          |     |     | ,    | •   |  |
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT AB A novel gene 0161P2F10B (also designated 161P2F10B) and its encoded protein, and variants thereof, are described wherein 161P2F10B exhibits tissue-specific expression in normal adult tissue, and is aberrantly over-expressed in several cancers. Consequently, 161P2F10B provides a diagnostic, prognostic, prophylactic and/or therapeutic target for cancer. The 161P2F10B gene is 100% identical to a previously cloned and sequenced gene, namely ectonucleotide pyrophosphatase/phosphodiesterase 3, also known as phosphodiesterase-I $\beta$ , gp130RB13-6, E-NNP3 (ENPP3), PDNP3,

and DC203c. The 161P2F10B gene of fragment thereof, or its encoded protein, or variants thereof, or a fragment thereof, can be used to elicit a humoral or cellular immune response; antibodies or T cells reactive with 161P2F10B can be used in active or passive immunization.

IT 525539-81-5 525540-99-2 525542-96-5 525544-34-7 525548-96-3 525550-81-6

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(epitope peptide; nucleic acid and corresponding protein designated 161P2F10B useful in treatment and detection of cancer)

RN 525539-81-5 HCAPLUS

CN L-Valine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 525540-99-2 HCAPLUS

CN L-Alanine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl-L-valyl- (CA INDEX NAME)

PAGE 2-A

RN 525542-96-5 HCAPLUS

CN L-Valine, L-arginylglycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl- (CA INDEX NAME)

PAGE 1-B

RN 525544-34-7 HCAPLUS

CN L-Arginine, L-seryl-L-phenylalanyl-L-arginylglycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl- (9CI) (CA INDEX NAME)

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 $H_2N$ 
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 $H_4$ 
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 $H_5$ 
 $H_6$ 
 $H_6$ 
 $H_8$ 
 $H_8$ 

PAGE 1-B

RN 525548-96-3 HCAPLUS

CN L-Cysteine, L-phenylalanyl-L-arginylglycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 525550-81-6 HCAPLUS

CN L-Cysteine, L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl-L-valyl-L-alanyl- (9CI) (CA INDEX NAME)

PAGE 1-B

SH

# IT 528836-14-8

RL: PRP (Properties)

(unclaimed sequence; nucleic acid and corresponding protein designated 161P2F10B useful in treatment and detection of cancer)

RN 528836-14-8 HCAPLUS

CN L-Arginine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-(CA INDEX NAME)

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OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

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L16 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2010 ACS on STN
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ACCESSION NUMBER: 2001:923846 HCAPLUS

DOCUMENT NUMBER: 136:65232

TITLE: 55P4H4 protein and gene expressed in various human

cancers

INVENTOR(S): Faris, Mary; Hubert, Rene S.; Afar, Daniel E. H.;

Levin, Elana; Mitchell, Steven Chappell; Raitano,

Arthur B.; Jakobovits, Aya

PATENT ASSIGNEE(S): Urogenesys, Inc., USA SOURCE: PCT Int. Appl., 160 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA      | PATENT NO.            |      |     |     |     |     | KIND DATE |            |     | APPLICATION NO. |      |      |          |     |     |      | DATE |  |  |  |
|---------|-----------------------|------|-----|-----|-----|-----|-----------|------------|-----|-----------------|------|------|----------|-----|-----|------|------|--|--|--|
|         | 2001<br>2001          | 0963 | 91  |     |     |     |           |            | ;   | WO 2            | 001- |      | 20010613 |     |     |      |      |  |  |  |
|         | ₩:                    | AE,  | AG, | AL, | AM, | AT, | AU,       | AZ,<br>DM, | •   |                 | •    | •    |          |     |     |      |      |  |  |  |
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|         |                       | RO,  | RU, | SD, | SE, | ,   | •         | SK,        | •   | •               | ,    | ,    | ,        |     |     | ,    | ,    |  |  |  |
|         | RW:                   | GH,  | •   | KE, | LS, | •   | •         | •          | •   | •               | •    | •    | •        | •   | •   | •    | •    |  |  |  |
|         |                       | •    |     |     |     |     | •         | GR,<br>GN, |     |                 |      |      |          | •   |     | TR,  | BF,  |  |  |  |
| EF      | 2 1294                | 875  |     |     | A2  |     | 2003      | 0326       |     | EP 2            | 001- | 9464 | 10       |     | 2   | 0010 | 613  |  |  |  |
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| US      | US 20030064418        |      |     |     | A1  |     | 2003      | 0403       |     | US 2            | 001- |      | 20010613 |     |     |      |      |  |  |  |
| PRIORIT | RIORITY APPLN. INFO.: |      |     |     |     |     |           |            |     | US 2<br>WO 2    |      |      |          | ]   | _   | 0000 |      |  |  |  |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A novel human gene (designated 55P4H4) and its encoded protein are described. Protein 55P4H4 shows sequence homologies to human hypoxia-regulated gene products, murine RIK, Drosophila CHARBYE, and yeast RIC1 proteins. While 55P4H4 exhibits tissue-restricted expression in normal adult tissue, it is aberrantly expressed in multiple cancers including prostate, bladder, kidney, lung, testis, bone, cervical, brain, and ovarian cancers. The gene is mapped to human chromosome 4q22.3-24, a region known to be associated with a variety of chromosomal abnormalities in a number of different cancers. Consequently, 55P4H4 provides a diagnostic and/or therapeutic target for cancers, and the 55P4H4 gene or fragment thereof, or its encoded protein or a fragment thereof used to elicit an immune response.

IT 382602-56-4 382602-59-7 382602-95-1 382603-33-0 382603-79-4 382603-90-9 382603-94-3 382604-28-6 383126-20-3

(unclaimed sequence; 55P4H4 protein and gene expressed in various human cancers)

RN 382602-56-4 HCAPLUS

RL: PRP (Properties)

CN L-Serine, L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl-L-seryl-L-lysyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

# PAGE 2-A

RN 382602-59-7 HCAPLUS

CN L-Lysine, L-lysyl-L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl-L-seryl- (9CI) (CA INDEX NAME)

PAGE 1-B

NH<sub>2</sub>

RN 382602-95-1 HCAPLUS

CN L-Lysine, L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl-L-seryl-L-lysyl-L-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

T.S. Heard Ph.D. Page 105

PAGE 1-B

RN 382603-33-0 HCAPLUS

CN L-Lysine, L-valyl-L-lysyl-L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl-L-seryl- (9CI) (CA INDEX NAME)

PAGE 1-B

NH<sub>2</sub>

RN 382603-79-4 HCAPLUS

CN L-Leucine, L-leucyl-L-valyl-L-lysyl-L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

T.S. Heard Ph.D. Page 107

RN 382603-90-9 HCAPLUS

CN L-Leucine, L-asparaginyl-L-leucyl-L-valyl-L-lysyl-L-methionyl-L-leucyl-L-  $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 382603-94-3 HCAPLUS

CN L-Serine, L-lysyl-L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl-L-seryl-L-lysyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

RN 382604-28-6 HCAPLUS

T.S. Heard Ph.D. Page 109

CN L-Lysine, L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl-L-seryl-L-lysyl-L-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 383126-20-3 HCAPLUS

CN L-Serine, L-leucyl-L-valyl-L-lysyl-L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl- (9CI) (CA INDEX NAME)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L18 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:1101939 HCAPLUS

DOCUMENT NUMBER: 151:334264

TITLE: Nucleic acid and corresponding protein designated 161P2F10B useful in treatment and detection of cancer

INVENTOR(S): Challita-Eid, Pia M.; Raitano, Arthur B.; Faris, Mary;

Hubert, Rene S.; Morrison, Karen Jane Meyrick;

Jakobovits, Aya

PATENT ASSIGNEE(S): Agensys, Inc., USA

SOURCE: U.S., 234pp., Cont.-in-part of U.S. Ser. No. 121,024.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 34

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|     | 2479       |      |     |      | A1       |       | 2003         |      |     | CA 2     |      |       |       |        |                    | 0020 |      |
| _   | 2480       | -    | 0.1 |      | A1<br>A2 |       | 2003         |      |     | CA 2     |      |       |       |        |                    | 0020 |      |
|     | 2003       |      |     |      | AZ<br>A3 |       | 2003<br>2005 |      |     | WO 2     | 002- | 0510  | 132   |        | ۷                  | 0020 | 401  |
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|     |            | GN,  | ,   | ,    | ML,      |       | NE,          |      | TD, |          | D1 , | БО,   | CI,   | 00,    | C + ,              | CI1, | 011, |
| WO  | 2003       | ,    | ~,  | Om,  | A2       | 1111, | 2003         |      | ,   | WO 2     | 002- | US10  | 220   |        | 2                  | 0020 | 401  |
|     | W:         |      |     | AI.  |          | AT.   | AU,          |      |     |          |      |       |       | B7.    |                    |      |      |
|     |            |      |     |      | CZ,      | DE,   |              | DM,  |     |          |      |       |       |        |                    |      |      |
|     |            | •    | HR, | HU,  | ID,      | IL,   |              |      |     | KE,      |      |       |       |        |                    |      | LR,  |
|     |            | ,    | LT, |      | •        | •     | •            |      |     | MN,      |      |       |       |        |                    |      | •    |
|     |            |      | PT, | ,    | RU,      |       | •            |      |     | SK,      |      |       |       |        | TR,                |      |      |
|     |            | UA,  | UG, | •    | VN,      | YU,   |              |      | ZW  | •        | ,    | ,     | ,     | ,      | ,                  | ,    | ,    |
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|     |            | KG,  | KΖ, | MD,  | RU,      | TJ,   |              | ΑT,  |     |          |      |       |       |        |                    |      |      |
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|     |            | GN,  | GQ, | GW,  |          |       | NE,          |      | TD, |          |      |       |       |        |                    |      |      |
| AU  | 2002       |      |     |      | A1       |       | 2003         |      |     | AU 2     | 002- | 2586  | 88    |        | 2                  | 0020 | 401  |
| AU  | 2002       | 2586 | 88  |      | В2       |       | 2008         | 0814 |     |          |      |       |       |        |                    |      |      |
| AU  | 2002       | 2586 | 89  |      | A1       |       | 2003         | 1020 |     | AU 2     | 002- | 2586  | 89    |        | 2                  | 0020 | 401  |
| AU  | 2002       | 2586 | 89  |      | В2       |       | 2007         | 0816 |     |          |      |       |       |        |                    |      |      |
| EP  | 1553       | 980  |     |      | A2       |       | 2005         | 0720 |     | EP 2     | 002- | 7286  | 45    |        | 2                  | 0020 | 401  |
|     | R:         | AT,  | BE, | CH,  | DE,      | DK,   | ES,          | FR,  | GB, | GR,      | IT,  | LI,   | LU,   | NL,    | SE,                | MC,  | PT,  |

|           | 4550         |      |      | CY, |          |     |      |       |     |        |            |       |                        |            |     |    |     |          |     |
|-----------|--------------|------|------|-----|----------|-----|------|-------|-----|--------|------------|-------|------------------------|------------|-----|----|-----|----------|-----|
| EF        | 1578         |      |      |     |          |     |      | 0928  |     |        |            |       |                        |            |     |    |     |          |     |
|           | K:           |      |      |     |          |     |      | FR,   |     |        |            |       | ⊥⊥,                    | LU,        | NL, | SE | , P | 1C,      | PT, |
| r.r.      | 1790         | TE,  | 51,  | L⊥, | LV,      | rı, | KU,  | MK,   | CY, | ED.    | և <b>,</b> | IK    | 1221                   |            |     |    | 200 | 20       | 400 |
| LF        |              |      |      |     |          |     |      | ES,   |     |        |            |       |                        |            |     |    |     |          |     |
|           | K:           |      |      | SE, |          | DE, | DK,  | ES,   | ГΙ, | rr     | Χ,         | GB,   | GK,                    | IE,        | ΤΙ, | ЬΤ | , _ | ı ( ,    | MC, |
| US        | 2007         |      |      |     |          |     | 2007 | 0208  |     | US     | 2.0        | 002-  | 1210:                  | 2.4        |     |    | 200 | 20.      | 410 |
|           | 2006         |      |      |     |          |     |      | 0105  |     | US     | 20         | 04-   | 8596                   | 43         |     |    |     |          | 602 |
| US        | 7279         | 556  |      |     | В2       |     |      | 1009  |     |        |            |       |                        |            |     |    |     |          |     |
| US        | 2007         | 0004 | 913  |     | A1       |     | 2007 | 0104  |     | US     | 20         | 004-  | 8607                   | 69         |     |    | 200 | 40       | 602 |
| US        | 7405         | 290  |      |     | В2       |     | 2008 | 0729  |     |        |            |       |                        |            |     |    |     |          |     |
|           | 2005         |      |      |     |          |     |      | 1013  |     |        |            |       | 9901                   |            |     |    | 200 |          |     |
|           | 2006         |      |      |     | A1       |     |      | 0126  |     | US     | 20         | 004-  | 9897                   | 67         |     |    | 200 |          |     |
|           | 2005         |      |      |     | A1       |     |      | 0929  |     | US     | 20         | 05-   | 7334                   | 9          |     |    |     |          | 303 |
|           | 2007         |      | 283  |     | A1       |     |      | 0301  |     | US     | 20         | 05-   | 1542                   | 98         |     |    | 200 | 50       | 615 |
|           | 7641         |      | 0.00 |     | B2       |     |      | 0105  |     |        | 0.0        |       | 4 5 6 0                | o 4        |     |    | 000 |          | 640 |
|           | 2007         |      |      |     |          |     |      | 0222  |     |        |            |       | 1562                   |            |     |    |     |          | 617 |
|           | 2007         |      | 299  |     | A1       |     |      | 0301  |     | US     | 21         | 105-  | 1559                   | 06         |     |    | 20U | 1501     | 617 |
|           | 7628<br>2007 |      | 201  |     | B2<br>A1 |     |      | 1208  |     | TTC    | 20         | 006   | 3682                   | 0 /1       |     |    | 200 | ) G () ' | 302 |
|           | 7592         |      | 204  |     | B2       |     |      | 0300  |     | US     | 2(         | 006-  | 3002                   | 04         |     |    | 200 | 100.     | 302 |
|           | 2008         |      | 822  |     | A1       |     |      | 31113 |     | IIS    | 20         | 06-   | 4420                   | 31         |     |    | 200 | 160      | 526 |
|           | 7642         |      | 022  |     | B2       |     |      | 0105  |     | 0.0    | 20         | , 0 0 | 1120.                  | <i>3</i> ± |     |    | 200 | , , , ,  | 320 |
|           | 2007         |      | 299  |     | A1       |     |      | 0913  |     | US     | 20         | 007-  | 6558:                  | 22         |     |    | 200 | 70:      | 119 |
|           | 7667         |      |      |     | В2       |     |      | 0223  |     |        |            |       |                        |            |     |    |     |          |     |
| US        | 2008         | 0233 | 598  |     | A1       |     | 2008 | 0925  |     | US     | 20         | 07-   | 7040                   | 92         |     |    | 200 | 70:      | 206 |
|           | 2007         |      |      |     | A1       |     | 2007 | 0419  |     | AU     | 20         | 007-  | 2013                   | 54         |     |    | 200 | 70:      | 326 |
| JF        | 2007         | 2544 | 90   |     | Α        |     | 2007 | 1004  |     | JΡ     | 20         | 07-   | 1683                   | 00         |     |    | 200 | 70       | 626 |
|           | 4177         |      |      |     | В2       |     |      | 1105  |     |        |            |       |                        |            |     |    |     |          |     |
|           | 2009         |      | 381  |     | A1       |     |      | 1022  |     | US     | 20         | 07-   | 8339                   | 18         |     |    | 200 | 70       | 803 |
|           | 7667         |      |      |     | B2       |     |      | 0223  |     |        | 0.0        |       | 0050                   | 0.0        |     |    | 000 |          |     |
|           | 2007         |      |      |     | A1       |     |      | 1220  |     |        |            |       | 2372                   |            |     |    | 200 |          |     |
|           | 2008<br>4299 |      | 15   |     | A<br>B2  |     |      | 0821  |     | JP     | 20         | 108-  | 4336                   | 8          |     |    | 200 | 180.     | 225 |
|           | 2008         |      | 15   |     | A1       |     |      | 1204  |     | 7\ [ ] | 20         | 108_  | 2462                   | 15         |     |    | 200 | 01       | 114 |
|           | 2000         |      |      |     |          |     |      | 0611  |     | DA     | 20         | 100-  | 2402.<br>3571.         | 1 J<br>5 A |     |    |     |          | 121 |
| PRIORIT   |              |      |      |     | 111      |     | 2003 | .0011 |     |        |            |       | 2827:                  |            |     |    |     |          |     |
| 11(101(11 | 1 111 1      |      | 1111 | • • |          |     |      |       |     | US     | 20         | 01-   | 2831                   | 12P        |     | P  | 200 | 10       | 410 |
|           |              |      |      |     |          |     |      |       |     | US     | 20         | 01-   | 2866:                  | 30P        |     | P  | 200 | 10       | 425 |
|           |              |      |      |     |          |     |      |       |     | US     | 20         | 01-   | 2831:<br>2866:<br>5480 |            |     | В1 | 200 | 11:      | 107 |
|           |              |      |      |     |          |     |      |       |     | US     | 20         | 002-  | 6210                   | 9          |     | A1 | 200 | 20       | 131 |
|           |              |      |      |     |          |     |      |       |     |        |            |       | 1210                   |            |     | A2 | 200 | 20       | 410 |
|           |              |      |      |     |          |     |      |       |     |        |            |       | 2270                   |            |     |    | 200 |          |     |
|           |              |      |      |     |          |     |      |       |     |        |            |       | 3003                   |            |     |    | 200 |          |     |
|           |              |      |      |     |          |     |      |       |     |        |            |       | 9643                   |            |     |    | 200 |          |     |
|           |              |      |      |     |          |     |      |       |     |        |            |       | 9354                   |            |     |    | 200 |          |     |
|           |              |      |      |     |          |     |      |       |     |        |            |       | 2586                   |            |     |    | 200 |          |     |
|           |              |      |      |     |          |     |      |       |     |        |            |       | US10:                  |            |     |    | 200 |          |     |
|           |              |      |      |     |          |     |      |       |     |        |            |       | US10:<br>3051:         |            |     |    | 200 |          |     |
|           |              |      |      |     |          |     |      |       |     |        |            |       | 3031)<br>7620:         |            |     |    | 200 |          |     |
|           |              |      |      |     |          |     |      |       |     |        |            |       | 1208:                  |            |     |    | 200 |          |     |
|           |              |      |      |     |          |     |      |       |     |        |            |       | 1208                   |            |     |    | 200 |          |     |
|           |              |      |      |     |          |     |      |       |     |        |            |       | 1209                   |            |     |    | 200 |          |     |
|           |              |      |      |     |          |     |      |       |     |        |            |       | 1209                   |            |     |    | 200 |          |     |
|           |              |      |      |     |          |     |      |       |     | AU     | 20         | 002-  | 3616                   | 10         |     | А3 | 200 | 21       | 107 |
|           |              |      |      |     |          |     |      |       |     |        |            |       |                        |            |     |    |     |          |     |

| JΡ | 2003-542587 | A3 | 20021107 |
|----|-------------|----|----------|
| US | 2002-291241 | A3 | 20021107 |
| US | 2005-73349  | В1 | 20050303 |
| US | 2006-368284 | A1 | 20060302 |
| JΡ | 2007-168300 | A3 | 20070626 |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A gene (designated 161P2F10B) and its encoded protein are described wherein 161P2F10B exhibits tissue specific expression in normal adult tissue, it is aberrantly expressed in the cancers of the breast, colon, kidney, lung, ovary, pancreas, and prostate. Consequently, 161P2F10B provides a diagnostic, prognostic, prophylactic, and/or therapeutic target for cancer. The 161P2F10B gene or fragment thereof, or its encoded protein or a fragment thereof, can be used to elicit a humoral or cellular immune response.

# IT 525539-81-5 525540-99-2 525542-96-5 528836-14-8

RL: PRP (Properties)

(unclaimed sequence; nucleic acid and corresponding protein designated 161P2F10B useful in treatment and detection of cancer)

RN 525539-81-5 HCAPLUS

CN L-Valine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 525540-99-2 HCAPLUS

CN L-Alanine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl-L-valyl- (CA INDEX NAME)

PAGE 2-A

RN 525542-96-5 HCAPLUS

CN L-Valine, L-arginylglycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl- (CA INDEX NAME)

PAGE 1-B

RN 528836-14-8 HCAPLUS

CN L-Arginine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-(CA INDEX NAME)

$$H_2N$$
 $H_2N$ 
 $H_3$ 
 $H_2N$ 
 $H_3$ 
 $H_4$ 
 $H_2N$ 
 $H_4$ 
 $H_5$ 
 $H_6$ 
 $H_2N$ 
 $H_5$ 
 $H_6$ 
 $H_8$ 
 $H_8$ 

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(15 CITINGS)

REFERENCE COUNT: 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

INVENTOR(S):

L18 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:853968 HCAPLUS

DOCUMENT NUMBER: 149:167940

TITLE: Peptide modulators of angiogenesis and their use for

treatment of cancer Popel, Aleksander S.

PATENT ASSIGNEE(S): The Johns Hopkins University, USA

SOURCE: PCT Int. Appl., 169pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

|            | PATENT NO.             |                                |     |      |     |           | KIND DATE |              |      |     | APPL          | ICAT | ION I | DATE       |       |          |             |     |  |  |
|------------|------------------------|--------------------------------|-----|------|-----|-----------|-----------|--------------|------|-----|---------------|------|-------|------------|-------|----------|-------------|-----|--|--|
|            |                        | WO 2008085828<br>WO 2008085828 |     |      |     |           |           | 2008<br>2008 |      |     |               |      |       |            |       | 20080103 |             |     |  |  |
|            | WO                     | W:                             | AE, | AG,  | AL, | •         | AO,       | AT,          | AU,  | •   | •             | •    | •     | •          | •     | •        | •           | •   |  |  |
|            |                        |                                | FΙ, | GB,  | GD, | GE,       | GH,       | CU,<br>GM,   | GT,  | HN, | HR,           | HU,  | ID,   | IL,        | IN,   | IS,      | JP,         | KE, |  |  |
|            |                        |                                | ,   | ,    | ,   | ,         | ,         | KΖ,<br>MΧ,   | ,    | ,   | ,             | ,    | ,     | ,          | ,     | ,        | ,           | ,   |  |  |
|            |                        |                                | ,   | ,    | ,   | ,         | ,         | SC,<br>UG,   | •    |     | •             | ,    | ,     | ,          | ,     | SY,      | TJ,         | TM, |  |  |
|            |                        | RW:                            | AT, | BE,  | BG, | CH,       | CY,       | CZ,          | DE,  | DK, | EE,           | ES,  | FI,   | FR,        | GB,   | ,        |             | •   |  |  |
|            |                        |                                | •   | •    | •   | •         | •         | LV,<br>CI,   | •    | •   | •             | •    | •     | •          | •     | •        | •           | •   |  |  |
|            |                        |                                | •   | •    | •   | •         | •         | LS,<br>MD,   | •    | •   | •             | •    | •     | •          | •     | UG,      | ZM,         | ZW, |  |  |
|            |                        | APP                            | LN. | INFO | .:  | ŕ         | ŕ         | ,            | ŕ    | · · | US 2          | 007- | 8785  | 79P        |       | 20070103 |             |     |  |  |
| $\Delta H$ | AB Pentides containing |                                |     |      | 2   | $^{\sim}$ | ı xí      | -            | 1200 | ก 🖘 | $\alpha$ mati | ヘエヤヘ | กาก   | $\alpha r$ | garn: | ın m     | $rac{1}{1}$ |     |  |  |

AB Peptides containing a TSP, CXC, collagen, somatotropin, or serpin motif as well as addnl. peptides derived from placental lactogen, caspase 10, etc., are disclosed. These peptides may be used to inhibit blood vessel formation, e.g., in treatment of tumors. Thus, a systematic computational methodol. based on bioinformatics was used to identify novel peptide modulators of angiogenesis that were characterized in vitro and/or in vivo.

#### IT 1039155-66-2

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(peptide modulators of angiogenesis and their use for treatment of cancer)  $\ensuremath{\mathsf{Cancer}}$ 

RN 1039155-66-2 HCAPLUS

CN L-Leucine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-(CA INDEX NAME)

L18 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:411968 HCAPLUS

DOCUMENT NUMBER: 148:447879

TITLE: Polynucleotide vaccines encoding CTL and/or HTL epitopes for inducing cellular immune responses

against influenza virus infection

INVENTOR(S): Alexander, Jeffery L.; Southwood, Scott F.; Bilsel,

Pamuk A.; Newman, Mark J.

PATENT ASSIGNEE(S): Pharmexa Inc., USA SOURCE: PCT Int. Appl., 313 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| E      | PATENT NO.                     |      |      |     |     |     |      | DATE              |             | ,               | APPL | ICAT | ION 1 | NO. |            | D.       | ATE  | D70723  BZ, CA, ES, FI, KE, KG, MD, ME, PH, PL, |  |  |  |
|--------|--------------------------------|------|------|-----|-----|-----|------|-------------------|-------------|-----------------|------|------|-------|-----|------------|----------|------|---|--|--|--|
|        | WO 2008039267<br>WO 2008039267 |      |      |     |     |     |      | 20080403 20081231 |             | WO 2007-US16529 |      |      |       |     |            | 20070723 |      |   |  |  |  |
| V      | 10                             |      |      |     |     |     |      |                   | _           | RΔ              | BB   | BC.  | ВП    | BD  | D M        | BV       | B7   | $C\Delta$                                       |  |  |  |
|        |                                | VV • | •    | •   |     | •   |      | •                 | •           | •               | •    | •    | •     | •   | •          |          | •    | •   |  |  |  |
|        |                                |      |      |     |     |     |      |                   |             |                 |      |      |       |     |            |          |      |   |  |  |  |
|        |                                |      |      |     |     |     |      |                   |             |                 |      |      |       |     |            |          |      |   |  |  |  |
|        |                                |      |      |     |     |     | ,    | •                 |             | ,               | ,    |      |       |     |            |          |      |   |  |  |  |
|        |                                |      | MG,  | MK, | MN, | MW, | MX,  | MY,               | ${ m MZ}$ , | NΑ,             | NG,  | NΙ,  | NO,   | NΖ, | OM,        | PG,      | PH,  | PL,   |  |  |  |
|        |                                |      | PT,  | RO, | RS, | RU, | SC,  | SD,               | SE,         | SG,             | SK,  | SL,  | SM,   | SV, | SY,        | ТJ,      | TM,  | TN,   |  |  |  |
|        |                                |      | TR,  | TT, | TZ, | UA, | UG,  | US,               | UZ,         | VC,             | VN,  | ZA,  | ZM,   | ZW  |            |          |      |   |  |  |  |
|        |                                | RW:  | AT,  | BE, | BG, | CH, | CY,  | CZ,               | DE,         | DK,             | EE,  | ES,  | FI,   | FR, | GB,        | GR,      | HU,  | IE,   |  |  |  |
|        |                                |      | IS,  | IT, | LT, | LU, | LV,  | MC,               | MT,         | NL.             | PL,  | PT,  | RO,   | SE, | SI,        | SK,      | TR.  | BF,   |  |  |  |
|        |                                |      | •    | •   | •   | •   | •    | GΑ,               | •           | •               | •    | •    | •     | •   | •          | •        | •    | •   |  |  |  |
|        |                                |      | •    |     |     |     |      | MZ,               |             |                 | •    |      |       | •   | •          |          |      | ,   |  |  |  |
|        |                                |      | BY,  | KG, | KZ, | MD, | RU,  | ΤJ,               | TM,         | AP,             | EA,  | EP,  | OA    |     |            |          |      |   |  |  |  |
| I      | ΔU                             | 2007 | 3006 | 63  | ·   | A1  | ·    | 2008              | 0403        | •               | AU 2 | 007  | 3006  | 63  |            | 20070723 |      |   |  |  |  |
|        | CA 2658559                     |      |      |     |     | A1  |      | 2008              | 0403        |                 | CA 2 | 007- | 2658  | 559 |            | 2        | 0070 | 723   |  |  |  |
|        |                                |      |      |     | A2  |     | 2009 |                   |             |                 |      |      |       |     | _          | 0070     |      |   |  |  |  |
|        | 11                             |      |      | DE  |     |     |      | CZ,               |             |                 |      |      |       |     |            |          |      |   |  |  |  |
|        |                                | κ:   | •    | •   | •   | •   | •    | •                 | •           | •               | •    | •    | •     | •   | •          | •        | •    | •   |  |  |  |
|        |                                |      | •    | •   | •   | •   | ,    | LV,               | MC,         | мт,             | ΝL,  | PL,  | PI,   | KU, | SE,        | SI,      | SK,  | IK,   |  |  |  |
|        |                                |      | •    | BA, | •   | MK, | RS   |                   |             |                 |      |      |       |     |            |          |      |   |  |  |  |
| PRIOR] | RIORITY APPLN. INFO.:          |      |      |     |     |     |      |                   |             |                 | US 2 | 006- | 8321  | 12P | P 20060721 |          |      |   |  |  |  |

OTHER SOURCE(S): MARPAT 148:447879

This invention uses our knowledge of the mechanisms by which antigen is recognized by T cells to identify and prepare influenza virus epitopes, and to develop epitope-based vaccines directed towards influenza virus. These epitopes are cytotoxic T lymphocyte epitopes, helper T lymphocyte epitopes and B cell epitopes derived from influenza virus hemagglutinin, neuraminidase, nucleoprotein, RNA polymerase subunit PA, RNA polymerase basic protein 1, RNA polymerase basic protein 2, nonstructural gene 1, nonstructural gene 2, matrix protein 1 or matrix protein 2. More specifically, this application communicates our discovery of pharmaceutical compns. and methods of use in the prevention and treatment of influenza virus infection.

WO 2007-US16529 W 20070723

RN 1017869-31-6 HCAPLUS

CN L-Threonine, L-serylglycyl-L-isoleucyl-L-methionyl-L-lysyl-L-threonyl-L-  $\alpha$ -glutamylglycyl-L-threonyl-L-leucyl-L- $\alpha$ -glutamyl-L- asparaginyl-L-cysteinyl-L- $\alpha$ -glutamyl- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

RN 1017869-33-8 HCAPLUS

CN L-Leucine, L- $\alpha$ -glutamylglycyl-L-threonyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L- $\alpha$ -glutamyl-L-threonyl-L-lysyl-L-

 $\label{lem:cysteinyl-L-glutaminyl-L-threonyl-L-prolyl-} \mbox{ (CA INDEX NAME)} \\ Absolute stereochemistry.$ 

PAGE 1-B

RN 1017870-02-8 HCAPLUS

CN L-Glutamine, L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L- $\alpha$ -glutamyl-L-threonyl-L-lysyl-L-cysteinyl- (CA INDEX NAME)

PAGE 2-A

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L18 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:377029 HCAPLUS

DOCUMENT NUMBER: 138:400512

TITLE: Nucleic acid and corresponding protein designated 161P2F10B useful in treatment and detection of cancer

INVENTOR(S):

Jakobovits, Aya; Raitano, Arthur B.; Faris, Mary;
Hubert, Rene S.; Ge, Wangmao; Morrison, Karen Jane
Meyrick; Morrison, Robert Kendall; Challita-Eid, Pia

PATENT ASSIGNEE(S): Agensys, Inc., USA

SOURCE: PCT Int. Appl., 269 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 34

PATENT INFORMATION:

| PATENT NO.   |   | KIND   | DATE  | AP   | PLICATION   | NO.                                    |                          | DĀ                       | ED, GE, GH, CR, LK, LR, CM, PH, TN, TR, TT  AM, AZ, BY  CM, EE, ES  EF, BJ, CF  20011107  20020401  20020401  20020401  CA, CH, CM  ED, GE, GH, CK, LK, LR  IZ, OM, PH |                          |  |  |
|--|---|--|---|--|---|--|--------------------------|--------------------------|--|--------------------------|--|--|
| WO 200304034<br>WO 200304034<br>WO 200304034             | 10  | A2<br>A9<br>A3                                   | 20030515<br>20030807<br>20050414  | WO   | 2002-US3  | 6002                                   |                          | 20                       | 0021   | 107                      |  |  |
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A novel gene 0161P2F10B (also designated 161P2F10B) and its encoded protein, and variants thereof, are described wherein 161P2F10B exhibits tissue-specific expression in normal adult tissue, and is aberrantly over-expressed in several cancers. Consequently, 161P2F10B provides a diagnostic, prognostic, prophylactic and/or therapeutic target for cancer. The 161P2F10B gene is 100% identical to a previously cloned and sequenced gene, namely ectonucleotide pyrophosphatase/phosphodiesterase 3, also known as phosphodiesterase-Iβ, gp130RB13-6, E-NNP3 (ENPP3), PDNP3,

and DC203c. The 161P2F10B gene of fragment thereof, or its encoded protein, or variants thereof, or a fragment thereof, can be used to elicit a humoral or cellular immune response; antibodies or T cells reactive with 161P2F10B can be used in active or passive immunization.

IT 525539-81-5 525540-99-2 525542-96-5 525544-34-7 525548-96-3 525550-81-6 525553-84-8 525556-01-8 525556-92-7

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(epitope peptide; nucleic acid and corresponding protein designated 161P2F10B useful in treatment and detection of cancer)

RN 525539-81-5 HCAPLUS

CN L-Valine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl- (CA INDEX NAME)

Absolute stereochemistry.

RN 525540-99-2 HCAPLUS

CN L-Alanine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl-L-valyl- (CA INDEX NAME)

PAGE 2-A

RN 525542-96-5 HCAPLUS

CN L-Valine, L-arginylglycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl- (CA INDEX NAME)

PAGE 1-B

RN 525544-34-7 HCAPLUS

CN L-Arginine, L-seryl-L-phenylalanyl-L-arginylglycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl- (9CI) (CA INDEX NAME)

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 $H_8$ 

PAGE 1-B

RN 525548-96-3 HCAPLUS

CN L-Cysteine, L-phenylalanyl-L-arginylglycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 525550-81-6 HCAPLUS

CN L-Cysteine, L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl-L-valyl-L-alanyl- (9CI) (CA INDEX NAME)

PAGE 1-B

SH

RN 525553-84-8 HCAPLUS

CN L-Alanine, L- $\alpha$ -aspartyl-L-alanyl-L-seryl-L-phenylalanyl-L-arginylglycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L- $\alpha$ -aspartyl-L-valyl- (9CI) (CA INDEX NAME)

PAGE 1-B

RN 525556-01-8 HCAPLUS

CN L-Arginine, L-lysyl-L-lysyl-L-cysteinyl-L-phenylalanyl-L- $\alpha$ -aspartyl-L-alanyl-L-seryl-L-phenylalanyl-L-arginylglycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 1-C

PAGE 2-A

RN 525556-92-7 HCAPLUS

CN L-Aspartic acid, L-phenylalanyl-L-arginylglycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-arginyl-L-cysteinyl-L-cysteinyl-L-d-aspartyl-L-valyl-L-alanyl-L-cysteinyl-L-lysyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 2-A

PAGE 3-A

PAGE 4-A

## IT 528836-14-8

RL: PRP (Properties)

(unclaimed sequence; nucleic acid and corresponding protein designated 161P2F10B useful in treatment and detection of cancer)

RN 528836-14-8 HCAPLUS

CN L-Arginine, glycyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-(CA INDEX NAME)

Absolute stereochemistry.

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OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L18 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN ACCESSION NUMBER: 2001:923846 HCAPLUS DOCUMENT NUMBER: 136:65232 TITLE: 55P4H4 protein and gene expressed in various human cancers INVENTOR(S): Faris, Mary; Hubert, Rene S.; Afar, Daniel E. H.; Levin, Elana; Mitchell, Steven Chappell; Raitano, Arthur B.; Jakobovits, Aya PATENT ASSIGNEE(S): Urogenesys, Inc., USA PCT Int. Appl., 160 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ WO 2001096391 20011220 20021205 WO 2001-US19246 20010613 A2 A3 WO 2001096391 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG A2 20030326 EP 2001-946410 20010613 EP 1294875 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR US 20030064418 A1 20030403 US 2001-881636 20010613 PRIORITY APPLN. INFO.: US 2000-211454P P 20000613 WO 2001-US19246 W 20010613 ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT A novel human gene (designated 55P4H4) and its encoded protein are described. Protein 55P4H4 shows sequence homologies to human hypoxia-regulated gene products, murine RIK, Drosophila CHARBYE, and yeast RIC1 proteins. While 55P4H4 exhibits tissue-restricted expression in normal adult tissue, it is aberrantly expressed in multiple cancers including prostate, bladder, kidney, lung, testis, bone, cervical, brain, and ovarian cancers. The gene is mapped to human chromosome 4q22.3-24, a region known to be associated with a variety of chromosomal abnormalities in a number of different cancers. Consequently, 55P4H4 provides a diagnostic and/or therapeutic target for cancers, and the 55P4H4 gene or fragment thereof, or its encoded protein or a fragment thereof used to elicit an immune response. ΙT 382602-56-4 382602-59-7 382602-95-1 382603-33-0 382603-79-4 382603-90-9

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382603-94-3
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RL: PRP (Properties)
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(unclaimed sequence; 55P4H4 protein and gene expressed in various human cancers)

RN 382602-56-4 HCAPLUS

CN  $L-Serine, \ L-methionyl-L-leucyl-L-\alpha-glutamyl-L-asparaginyl-L-approx and the serious content of the content o$ cysteinyl-L-leucyl-L-seryl-L-lysyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

## PAGE 2-A

RN 382602-59-7 HCAPLUS

CN L-Lysine, L-lysyl-L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl-L-seryl- (9CI) (CA INDEX NAME)

PAGE 1-B

NH<sub>2</sub>

RN 382602-95-1 HCAPLUS

CN L-Lysine, L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl-L-seryl-L-lysyl-L-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

T.S. Heard Ph.D. Page 141

PAGE 1-B

RN 382603-33-0 HCAPLUS

CN L-Lysine, L-valyl-L-lysyl-L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl-L-seryl- (9CI) (CA INDEX NAME)

PAGE 1-B

NH<sub>2</sub>

RN 382603-79-4 HCAPLUS

CN L-Leucine, L-leucyl-L-valyl-L-lysyl-L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

T.S. Heard Ph.D. Page 143

RN 382603-90-9 HCAPLUS

CN L-Leucine, L-asparaginyl-L-leucyl-L-valyl-L-lysyl-L-methionyl-L-leucyl-L-  $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl- (9CI) (CA INDEX NAME)

PAGE 2-A

RN 382603-94-3 HCAPLUS

CN L-Serine, L-lysyl-L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl-L-seryl-L-lysyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

RN 382604-28-6 HCAPLUS

T.S. Heard Ph.D. Page 145

CN L-Lysine, L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl-L-seryl-L-lysyl-L-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 383126-20-3 HCAPLUS

CN L-Serine, L-leucyl-L-valyl-L-lysyl-L-methionyl-L-leucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L-cysteinyl-L-leucyl- (9CI) (CA INDEX NAME)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1975:51839 HCAPLUS

DOCUMENT NUMBER: 82:51839
ORIGINAL REFERENCE NO.: 82:8222h,8223a

TITLE: Biological activity and the binding affinity of

modified insulins determined on isolated rat fat cells

AUTHOR(S): Gleimann, J.; Gammeltoft, S.

CORPORATE SOURCE: Inst. Med. Physiol. C, Univ. Copenhagen, Copenhagen,

Den.

SOURCE: Diabetologia (1974), 10(2), 105-13 CODEN: DBTGAJ; ISSN: 0012-186X

CODEN: DBTGAJ; ISSN: UUIZ

DOCUMENT TYPE: Journal LANGUAGE: English

AB The insulin analogs, 26B-30B-depentapeptide-insulin [52499-33-9], 1A-deglycine-insulin [52627-23-3] 1B-deamine-insulin [52499-38-4] and 1A,1B-diphenylthiocarbamoyl-insulin [52499-62-4] exerted the same maximal effect on the conversion of glucose [50-99-7] into lipids as native insulin [9004-10-8] in isolated rat fat cells. Removal of 2 amino acids from the N-terminal end of the B chain caused little decrease in potency (the concentration required for a modified insulin to produce 1/2 of

maximal effect as compared to the concentration required for insulin). In contrast, removal of glycine from the N-terminal end of the A chain decreased the potency by 99%. The potency of the modified insulin substituted with acetyl or succinyl residues at position A1 was less than that at position B1 or B29. Cross linkage between positions A1 and B29 decreased the potency to 2-10%, whereas that between A1 and B1 almost abolished the activity. Of 9 modified insulins tested for their effect on insulin-125I binding to fat cell receptor sites, all inhibited the binding and the inhibition increased with decreasing biol. potency. The binding affinity of insulin, and therefore the potency, appears to be dependent on an intact tertiary structure of insulin and a free access to the N-terminal end of the A chain.

### IT **52499-62-4**

the

RL: BIOL (Biological study)

(lipid formation stimulation by, in adipose tissue)

RN 52499-62-4 HCAPLUS

CN Insulin (cattle), NA-[(diphenylamino)thioxomethyl]-NB- [(diphenylamino)thioxomethyl] (9CI) (CA INDEX NAME)

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FILE HOME

FILE REGISTRY

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FILE HCAPLUS

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